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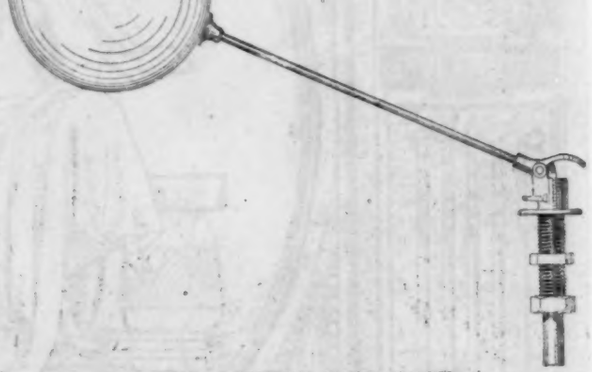

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TIME passes so rapidly with us that the winner of the *American Architect* Travelling-Scholarship has actually crossed the Atlantic before we have found time to remember that our readers may be interested in knowing how our undertaking resulted. As might be expected, the announcement of our intention to send a travelling student abroad for a year attracted widespread attention, and letters of inquiry were received from almost every State in the country. Although the endeavor to conduct the examinations by mail proved unexpectedly difficult, tedious and in every way unsatisfactory, the examinations were at length brought to a close, with the result that the Scholarship was awarded to Mr. Theodore F. Laist, a young man who was born of German parents in Cincinnati just twenty-one years ago. Mr. Laist's architectural career began in the office of Mr. Charles Crapsey, of that city, where he remained a year and then entered the Massachusetts Institute of Technology. After a year under the instruction of Professor Clark he went to Cornell University and entered the Junior Class of the undergraduate course, and with this class he graduated with the degree of Bachelor of Science in 1888. Since that time he has been at work in the office of Messrs. Mason & Rice, of Detroit. The only professional eminence Mr. Laist has, before this, achieved was his election as President of the Detroit Architectural Sketch-Club, but as he impressed us as a young man of sufficient force of character to profit by the opportunities we have put within his reach, we may hope to hear favorably of his work in after life. In this connection it is well to record that the Travelling-Scholarship of the Boston Museum of Fine Arts was about the same time awarded to Mr. J. C. Martin, an employé in the establishment of the Forbes Lithograph Manufacturing Company, of Boston.

THE meanest outrage in the whole history of trades-unions appears to be that perpetrated last week at the new Union Trust Company's Building in New York. It will be remembered that two years ago the firm of Peck, Martin & Company, dealers in brick and other building materials, happened to offend the magnates of the trades-unions, we believe by inadvertently allowing a non-union man to drive one of their wagons. War to the knife was immediately declared against the unhappy firm. On all buildings for which they supplied any of the materials, work was immediately stopped, by order of the walking-delegates. There are a good many people in New York, however, who like fair play, and these took the part of the excommunicated firm, and declined to break off their contracts with them. Then the unions executed a flank movement, by trying to prevent Peck, Martin & Company from receiving materials from the brick-yards. All the brick manufacturers were notified that they would be "struck" if they delivered any bricks to Peck, Martin & Company; and the bargemen on the river were ordered to refuse to navigate any boat to the wharves occupied by the offenders. After the business of the firm had been completely destroyed, their patience gave out, and they had some of the worst of the walking-delegates brought into court, to answer to a charge of conspiracy. The captives were let off with a merely nominal punishment, but it seems that they have long meditated revenge, of the peculiar trades-union sort, which consists in punishing perfectly innocent people instead of the real offenders, when these happen to be of a sort that it is dangerous to tamper with. In the present case, Mr. David H. King, Jr., being under contract with the Union Trust Company to build a large twelve-story office-building, on very costly land, within a limited time, an excellent opportunity was presented for displaying a conspicuous example of the annoyance and injury which walking-delegates can inflict, when they begin to feel the need of advertising themselves and their power. It happened that Mr. King, like scores of other people, was using some of Peck, Martin & Company's materials, quite forgetful of the feud which every one thought had been settled two years ago, when a lot of walking-delegates came to him, and "objected" to his receiving materials from this particular firm. Mr. King answered, mildly enough, that he had a contract with the firm, from which he could not withdraw, adding, with pacific intent, that he himself employed union men, and did not know of any trouble between Peck, Martin & Company and the unions. This did not satisfy the delegates, who were obviously bent on mischief, and they warned him that if he did not "abandon his contract" with Peck, Martin & Company, "there would be trouble." As "abandoning a contract" is a matter about which the other party to the contract has something to say, and Mr. King had good reason to suppose that he would get himself into "trouble" if he tried to do so without the other party's consent, he neglected to obey the ambassadors, and a day or two later more than three hundred men left the building in a body, at the order of the walking-delegates. The latter, as is their wont, were profuse in apologies and explanations. "They had no complaint," they said, to make against Mr. King, or against the Cornells, who were doing the ironwork in the building, and who, of course, saw their operations brought to a standstill. On the contrary, said the delegates, "they were sorry" that the strike injured people who had given no cause for offence, and they must seek consolation in the reflection that it was not directed at them, but at Peck, Martin & Company, and with this very dubious comfort the parties concerned were, at last accounts, trying to content themselves.

A GREAT deal of talk is going on in Boston about the statue of General Cass, which a patriotic military association had made, and offered to the city, to be placed in the Public Garden. This generous offer was the signal for a storm of protests, and in the discussion a curious story came out. It appeared that the committee of the military association, being under the usual American impression with regard to the manufacture of statues, thought it would be an excellent idea to give the job to a worthy stone-cutter, who did something in angels and the like for graveyards. The stone-cutter, whose honesty and respect for the art with which he held a modest connection deserve to be commemorated, conscious that he could not do justice to his subject, sent the photographs of the deceased General which had been entrusted to him to a professional sculptor of reputation, with the request that he would make him a sketch. The sculptor did so, and the stone-cutter paid him three hundred dollars for his trouble. When the statue was finished, it pleased its military owners so much that they wished to give their fellow-citizens a chance to share their happiness, and decided to offer it to the public authority. Some purist, wishing to see what the new civic decoration was to be

like, visited the stone-yard, and on his return wrote a rather severe criticism of the statue, denouncing, among other things, the carelessness by which an officer was shown in full-dress uniform as to his upper portions, while his legs were concealed by enormous boots, of the pattern of those used by pioneers when digging trenches. The sculptor who designed the figure then formally protested against its display in the Public Garden, on the singular ground that he had supposed it was intended only for a cemetery, and that to put it in a more conspicuous position, for which it was wholly unsuited, would injure his reputation. Other persons presented their views on the subject, and it looks now as if the gift would be refused.

THIS would, it seems to us, be unfortunate. We must confess that we have no sympathy whatever with the persons who wish to have every sort of work of art kept in the background which does not come up to their standard of perfection. Very likely the statue is bad, and it seems unquestionable that it is carelessly studied and ungraceful; but it could not be less graceful than some of the extraordinary figures which lurk about in the bushes in the New York Central Park, and historical accuracy certainly need not be more offended by a general with engineer's boots over his full-dress trousers than by Greenough's Washington, which sits in grim nudity, holding its sword by the blade, in front of the Capitol. The first thing that this country needs to get rid of, in order to advance in the fine arts, is the idea that they are something that only a few initiated persons can comprehend, and that only what they say is good ought to be looked at by the common herd. So long as this idea prevails we shall continue to be enslaved by mannerisms and fashionable artistic hobbies, to the exclusion of true feeling for art, on the part both of artists and the public. In our humble opinion, the best thing that could happen for art in Boston would be to have its Public Garden crowded with all the statues, good, bad and indifferent, that any one chose to present to it. Then, and only then, would the citizens, seeing all the sorts together, and comparing them day after day, by degrees infallibly select the best — not, probably, those which the critics told them were the best — but those which touched most surely and deeply the Boston heart, and in the end the critics, too, would acknowledge that these were the best. Every great national school of art has been formed in this way by the public, not by *dilettanti*, and the American public is as capable as any that ever existed of promoting the development of art by this sort of natural selection, if it could have the objects presented to it in sufficient numbers, and without the intervention of showmen to point out what ought to be admired by well-instructed persons.

M. ROUX, in *L'Architecture*, calls attention to the fact that in France, even under the present laws, the responsibility of architects in matters of construction is judged by rules differing totally from those applied to engineers, whether civil or military. If, as he says, a contractor cheats his employer, or mistakes happen through lack of supervision, the architect is attacked and often made to pay heavily, while engineers, under similar circumstances, are not molested, and he fortifies his conclusions by a number of examples, which he has collected and compared. In 1855, for instance, while the unhappy Gauthier was languishing in jail because he did not happen to catch the contractor for one of his buildings in the act of cheating, the sewer in the Rue de Rivoli, which ran alongside the Tuileries, fell in, immediately upon its completion, for a length of about an eighth of a mile. The sewer was rebuilt at the public expense, and under the supervision of the same engineer who designed the one which fell in. The engineer was not harmed, either in pocket or reputation, by the occurrence, and has since risen to great eminence. In 1876, an immense building, forming the north wing of the barracks at Livran, near Bordeaux, which had been designed and supervised by the military engineers, fell down with a terrible crash, when almost completed, killing a workman and causing an enormous loss; yet no one thought of calling the military engineers to account for the disaster. In 1878, M. Roux finds in a newspaper of the period that "the prefect and the engineer" had visited the bridge of Miramont, which, "from some inexplicable cause," had fallen down immediately after its completion, killing a large number of people. As M. Roux says, it would be interesting to see what would be done to an architect who should have a building collapse on its inmates from what he called "an inexplicable cause."

M. ROUX'S most curious examples, however, are two parallel cases, which occurred in Paris at nearly the same time. About twenty years ago M. Peters, a brewer, built large cellars on the Avenue de Courbevoie, covered, after the French manner, with barrel vaults. In this instance, the cellars being very extensive, the barrel vaults were ranged side by side, the axes being all parallel to each other, and to the line of the street, and communication between the sections being obtained by openings in the walls dividing them. The vaults were below the street grade, and earth was filled in over them. The architect, who was a young but skilful man, the son of an experienced provincial architect, ordered the contractor to fill carefully over the vaults, spreading the material evenly, to avoid unequal pressure. Notwithstanding his remonstrances, the workmen discharged their carts in a body on the side of the vault nearest the street, loading it on one haunch only. The pressure deformed the arch, the crown rose, and the loaded haunch descended, and the vault fell in. As soon as it gave way, the next vault, relieved of the thrust from the first one, which had kept it in position, spread and fell, and, for the same reason, all the others, in succession, collapsed. The owner attacked the architect, on the ground of his joint responsibility with the contractor, and he was condemned to pay thirty thousand dollars damages, and died soon after of grief and despair. Five years later, an engineer, whose name is given, designed a subterranean reservoir, which he arranged to cover with a series of parallel vaults, exactly like the brewery cellar of the preceding case. As soon as the vaults were finished, the contractor began to fill in above them. Exactly as in the preceding case, his men emptied their tip-carts on the edge of the outer vaults, apparently without remonstrance or direction of any kind from the engineer, and, as before, the outer vault changed its shape, collapsed and fell, followed by all the others, over a space of eight or nine thousand square feet, burying five men. The engineer went to look at the ruins, with the chief of police, but found the accident inexplicable. He thought that perhaps the bricks or the workmanship in some particular place might have been defective, and that the fall of a part had induced the collapse of the rest. The cost of repairs was about thirty thousand dollars, which the water-company paid cheerfully, without dreaming of holding anybody to responsibility for the "accident."

THE usual autumnal crop of enthusiastic descriptions of new motors and other inventions is now to be gathered from the daily newspapers. A few days ago, much information was presented in relation to a sort of engine which was to use ammonia-gas instead of steam, and now another specimen of the numerous race of hot-air engines is held up to the admiration of the public. We have no objection to either ammonia or hot-air engines, and those who can use them, and find them economical, should by all means continue to do so, but it will do no harm to remind people who may be tempted to invest money in the development of such inventions that neither of them is new. Ammonia, like ether, carbon bisulphide, and many other substances more volatile than water, has often been used for driving steam-engines, but never yet very satisfactorily, the immense superiority of water to other substances of the kind in capacity for heat appearing to render it the most economical source of elastic vapor yet discovered. As to hot-air engines, so many are in use already that it seems to have been hardly worth while for any one to invent a new one. The Ericsson and Rider pumping-engines are familiar to most architects, and do their work well and economically, and a hot-air elevator engine is still a good deal used, which gives satisfaction, and saves the care and expense of a steam-boiler. The main objection to it consists in the trouble of replacing the packings, which, on account of the high temperature of the air in the cylinders, burn out quickly; but if this could be remedied, which would not appear to be a difficult matter, there seems to be no reason why a hot-air engine could not be devised which would meet, even more satisfactorily than any yet produced, the requirements of the somewhat limited market for such contrivances.

JEAN PAUL AUBÉ.[1]—IV.

THE SCULPTURE ON THE GAMBETTA MONUMENT.

AUBÉ lost no time, after receiving the commission, in beginning work on the figures for the Gambetta monument. His old studio being too small for the purpose, he took another and much larger one on the Rue Lecourbe.

It is doubtful if any memorial ever made in the world has caused so much private and public personal interest, and all centring in the sculpture. It is not strange then that Aubé's studio should become in no little degree a sort of Mecca for the friends of the great republican.

The days during the execution of the work were counted, its progress noted at every step with the liveliest interest, and the date of its final unveiling, when it would appear permanently against the "fair blue sky of France," was looked forward to with impatience and suppressed joy. The sculptor worked with the double interest of artist and man, for Gambetta was one of his best friends and most ardent admirers.

The group on the face of the monument, which is nearly twenty feet high, was modelled one-third of this size, and enlarged when executed in stone. The remainder of the sculpture is in bronze, and was, of course, modelled full-size. The three figures of Force, Truth and Democracy are about thirteen and one-half feet high, as they sit.

The process of making these statues is interesting, as illustrating the character of the sculptor's mind and the limits of methods. It is a facilitating custom, with the large majority of sculptors, to make a carefully measured model in plaster, generally one-third the size of the original work, and then have it enlarged by workmen to its full dimensions in clay. Like most easy ways of attaining an end, its value depends upon the character of the work to be executed, and the kind of artist who makes the first model from which the enlargement is to be made. In the hands of any but a very strong sculptor the method is as dangerous as uncertain. Rude used it with extraordinary exactitude and power, and Fremiet, his favorite pupil, also handles it like a great master. It is most treacherous in connection with the nude, and this was where even so capable a man as Aubé found it useless. He tried it on his first figure for the monument, and it did not work. No measurement, however exact, could produce the desired effect in nude forms. He therefore began his work full-size, continually modelling from life.

The monument was inaugurated July 14, 1888, in presence of Carnot, the President of the Republic, and an immense number of high military and civic dignitaries. The ceremony was of the most imposing and enthusiastic nature. All Paris was there, to admire the tribute paid to the Republican hero, to listen to the firing of guns, the strains of exultant music and the eloquent words uttered by the orators of the day. The Hon. E. Speller, the intimate friend and co-laborer of Gambetta, delivered a brilliant presentation speech, followed by those of the Presidents of the Senate and Chamber of Deputies. The Secretary of State, Floquet, received the monument on the part of the French people, the Government and the unnumbered friends of the dead statesman. If the initiation, progress of execution and final completion of the memorial had been without parallel in the history of monuments, as an expression of love for the dead, the closing ceremonies, which affirmed its existence and started it on its many-centuried journey in the history of art, were equally abounding in enthusiasm and heartfelt attachment.

The principal piece of sculpture on the monument is composed of five figures, the central one of which is a statue of Gambetta represented as pronouncing the words, in his speech of November, 1870: "Frenchmen, let your souls and resolves rise to the height of the perils which fall upon the country. It still depends upon you to show to the whole universe what a great people can do who are determined not to perish." His right arm is extended as though pointing to the frontier, while his left is placed around the neck of a wounded soldier, who, supporting or resting himself upon a cannon, holds a broken sword in his right hand. The latter figure symbolizes an exhausted and half-vanquished army. At the right of Gambetta, and partly behind him, are three other figures. The one at his feet represents an adolescent youth in the garb of a sailor, or of a young farmer, who, in response to the words of the orator, reaches to the ground to pick up a sword; his head is thrown back, and his whole body answers with pride and readiness: it is National Defense preparing for a last effort. Above this figure appears the nervous body of a workman who holds a gun in his hands, and seems exalted at the call made upon his patriotism: he represents the veteran who is ready, in company with the youth, to again go forth in defense of the country. Above Gambetta arises the winged genius of France, who unfurls the flowing folds of a flag which forms a kind of aureole about the head and shoulders of the orator; he comes to inspire the latter in his task of rallying his unfortunate countrymen.

Under this group, on a marble panel set into the die of the monument, are inscribed these words:

TO GAMBETTA,
THE COUNTRY
AND THE REPUBLIC.

On each side of this inscription, seated at the angles of the die, is a naked youth, holding a shield, upon which are marked the interlaced letters R. F. (*Republique Française*). The figures are joined by an immense bronze garland of oak-leaves. On the angles of the rear face of the die are two other youths with their hands clasped, as indicative of concord between Labor and War. Under the cornice of the cap of the shaft, and also on the rear face of the monument, are two charming heads of a boy and girl with their faces very close together, practically kissing each other. Below, is engraved the word Fraternity. On the right side of the die sits the bronze figure of Truth, holding at arm's-length, in her left hand, the symbolic mirror. On the opposite side, also in bronze, is the statue of Force, who rests her right hand upon the ancient fasces, symbolic of Union. On the summit of the monument is placed a great lion with widespreading wings, bearing upon his back the figure of Democracy wearing a Phrygian cap. In her left hand she holds the tables of the Rights of Man, upon which are engraved these words: "Declaration of the rights of the man and the citizen." In her right hand, with arm extended, she grasps the emblem of thunder.

Le Temps, the most serious journal in Paris, while giving a full description of the monument, spoke as follows concerning its merits: "This is not the place for a learned and complete criticism of this work, but we may be permitted, however, to observe that, in the Gambetta group, M. Aubé has known how to marvellously vanquish the difficulties that the statuary encounters in rendering stuffs and draperies. It is also proper to allude to the great conscientiousness that the artist has employed in the preparation of his material and the choice of his models. For instance, the triumphal unfurling of the flag which is carried by the genius of the country, instead of being like those rendered by the most of his colleagues, in cloth, stiff and conventional, M. Aubé has made a flag of real plaits naturally blown out by the wind."

The *Journal Illustré*, in its description, said that the figure of "Truth was an amiable and fine translation of a French woman. The Force is a pure masterpiece — in an attitude of the most heroic tranquility, and as sure of herself as one can imagine the representative of a people who think of revenge without speaking about it." "The heads of the children who are clasping hands are adorable." Of the other figures the same paper observed that they perfectly expressed their several purposes. It has been repeatedly said that the Gambetta group was a reminder of Rude's great bas-relief on the Arch of Triumph. The allusion is correct, in that the sentiment is the same, but Aubé's composition is as original with him as the Marseillaise was with Rude. Rude's is more monumental but Aubé's more human. The first touches a national principle; the second stirs the heart. If the last, by the nature of its subject and material, lacks the great planes of the former, it is warmer in its color, more familiar and human in its composition, and less conventional. It is worthy to be placed with that by Rude as a composition and, after that one, is the most stirring, complete and martial bas-relief of modern times.

The figure of Gambetta is splendid in its ardor, affectionate in its dignity and inspiring without pretension. History in one man. The conception of the whole group is fine, intimate and profoundly artistic. Its art is equalled by its patriotic intelligence. It has the extraordinary significant quality of commemorating the past and inspiring the future. It is the great bugle-note of France to-day. As a piece of sculpture it is most admirable, from a high point-of-view. Its execution in stone was watched by the sculptor with the utmost care, and for a work where intermediate workmen were employed it is a fine success. The pity is that it was not executed in bronze. Less money should have been spent on the pedestal and more given to the sculptor. One sees in this structure an example, especially lamentable in France, of the difficulties that many sculptors have to contend with when working in company with architects. The architectural part of the monument is extremely commonplace, and money expended on such a pile is worse than thrown away. If Aubé had been more fortunate in his professional association the whole structure would have been more harmonious. Besides, no sculpture shows well in that kind of stone until time has blackened it. It is a public loss, as well as a disgrace, that men like Aubé should not have their own way.

The group of Concord, on the rear of the monument, is one of the loveliest in French sculpture. The charm and truth of its idea is Aubé, man and artist. The freshness, sincerity and honesty of its

[1] Continued from No. 717, page 139.

modelling are simply superb. You may enlarge these figures to any dimension, and they will retain their full sentiment and character. So far as the sculpture is concerned, the group of youths on the face of the monument is just as fine, though not quite so happy in idea. There is not a shadow of conventionalism about these figures; they are natural, life-like and handsome enough to be Greek. Their heads are exceptionally fine, a rarity in French sculpture. You seldom see a fine head on a French statue, if it be not a portrait. The whole composition of these four figures shows Aubé to be, what has been well-known for years, one of the very best and truest of French sculptors.

The figures of Truth and Force should be counted amongst the first-class monumental sculpture in the country. Not because they are what is understood as monumental sculpture, pure and simple, but because they are good sculpture. Rude's bas-relief is eminently monumental; Aubé's statues are large, human and beautiful. They are living, breathing women — handsome enough to be goddesses. In this kind of sculpture they have no superior in all French art. They are quite as strong as Carpeaux's work but more refined, more closely studied. The "Force" is a grand statue, feminine and graceful. The "Truth" is a fine, delicate and elegant representation of the subject. Her modesty is exquisite. It is a perfect example of a suggested subject. The conception of both of these figures indicate a high grade of art-temperament. High in its origin, and high in its continual and undeviating progress, easy and refined in its expression. The modelling is thoroughly genuine, fresh, honest and life-like. In modelling, as in type and character, each figure is kept firmly and unpretentiously with its own individuality. If the "Force" is firm, the "Truth" is tender. They do honor to French art.

The opportunity for a great decorative group on the summit of the monument was extremely fortunate, and it has been grandly met. The only other one that approaches it was that offered on the Column of July, but this one being nearer the eye gave a wider scope to the artist. It is an extremely successful symbolic group, happy in its conception, composed with mastery, and carried out as it deserved to be. The young Republic sits as gracefully and proudly as an angel upon the back of the lion. It is a superb example of architectural sculpture, a splendid epitome of French Republican sentiment. Here, again, one thinks of Carpeaux, but he has met his peer in Aubé. Rodin is more intense, Fremiet more distinguished, but for a complete expression of good, healthy sculpture, that on this monument must be accorded a place amongst the very best, since the Greek.

From any art point-of-view this sculpture is to be considered only as sculpture, because the character of the architecture is such that the former has no real artistic relation with the latter. This fact is no fault of the sculptor's. No sculptor, however great, could have found a proper relationship for his figures with such an architectural structure. Justly speaking, the work of Aubé is the monument. It realizes two great facts, in any country's art, the existence of such a temperament as that possessed by Aubé, and its expression to such a full extent. It marks a decided date in French sculpture, a date of which the whole nation ought to be proud. There are no female figures in French sculpture, with which the writer is familiar, that are at the same time so colossal and womanly, in fact exquisite in conception and beautiful in their rendering. They are the production of one of the very best balanced, fullest and healthiest sculptors of modern times. They establish with unquestioned authority the point-of-view from which they are to be judged, and they are so well done that they leave no vantage ground for the critic. They absolve themselves from comparison with any other sculpture, and oblige an individual judgment. They may rise and walk with the rest of the world, as human beings, flesh and blood and bones. So far they are Greek; other than that they are French in a large way.

Aube has known how, in the Gambetta group, to interpret and continue to futurity, the affectionate relationship that existed between French Republicans and their great leader. This group follows and confirms the Marseillaise with astonishing appropriateness and progressive historical authority.

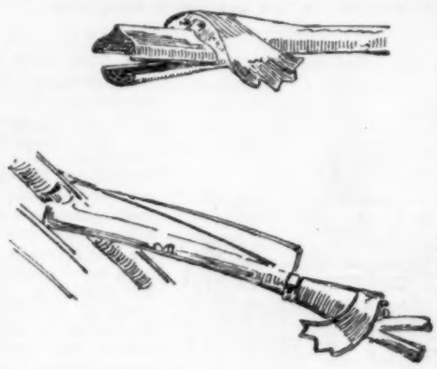
As a fitting recognition of his merits the sculptor received the decoration of the Legion of Honor the day after the inauguration of the monument.

T. H. Bartlett.

[To be continued.]

A Novel Electric Railway.— An electric railway is now running in England on the southern coast, in which the supply system is quite different from any electric railroad in this country. About a foot and a half from the car on the side of the track a flat rail runs, this rail being raised on posts of a foot in height, the current travelling on this rail being connected with the car mechanism by a rod containing a wire. A peculiar part of the system is in the crossing of streets, the rail ceasing abruptly on one side of the road, and the car propelled by its momentum plying across the road, where the connecting rod catches on to the rail once more. A wire passes under the road from one end of the raised rail to the other side of the road and joins the current. These cars often travel at the rate of twenty miles per hour. The electricity used is generated by a water-wheel at one end of the route. — *Providence Journal.*

THE RESTORATIONS OF THE DUCAL PALACE, VENICE.



It is announced that the restorations of the Ducal Palace in Venice are completed, and that the glorious building will be thrown open to sight in November at the latest, freed from the hoarding and balks of timber which have hidden one or other part of it for about twenty years. A correspondent of the London *Times* says: "The work done on it is one of the most formidable of modern restorations, and the manner in which it has been carried out merits the highest praise that can be given to a work of its kind. Saving extraordinary accidents, it will stand in good condition as long as it has stood, for every avoidable element of decay has been eliminated from the construction.

"To appreciate what has been done, it is necessary to know the weaknesses of construction in the old building, due to the carelessness or ignorance of the early builders, or to the lack of those mechanical appliances which modern art has developed. The original condition of the site was far more favorable for solidity than that of St. Mark's, being on a ridge of comparatively solid land, but the first building, of the eighth century, of which nothing is now visible externally, was evidently a modest brick castle with at least two towers, one at the corner next the Ponte di Paglia (in which the Emperor Otho was lodged), and the other where the triple column in the superior arcade of the western or Piazzetta façade breaks the uniformity of the structure. When, later, it was decided to construct a more splendid building, the Riva façade seems to have been alone originally planned for, and this triple column was intended to mark the extent of the plan. The exterior of the old building was pulled down and the new laid on the old foundations, and at the southeast angle certainly without strengthening the foundations, intended for a much lighter building. The interior work of this tower is still visible, showing how the later structure was grafted on the earlier.

"The consequence of the piling of the enormous weight of the present mass on the slight foundation was that the foundation sank to such an extent that the superstructure on the angle was thrown forward to the distance of twenty-eight centimetres, and, but for shoring, must finally have sent the angle into the canal. The columns of the lower colonnade at the angles southeast and southwest were braced by iron bars which ran through the capitals so as to add the strength of the whole to the corner column which bore the direct push. These bars, increasing in size by the oxidation, split the capitals without a single exception, thus weakening the building rather than strengthening it. Where the columns rested on the stylobate the bed was prepared for equalizing the pressure by pouring lead between.

"But this was never equally distributed and the pressure was not equalized, the consequence of which was that the columns sometimes split, and, as the capitals were similarly arranged and took more directly the pressure, they oftener split, and in some cases were crushed into many pieces — the corner column on the southwest into thirty or forty fragments. On the second-story colonnade the capitals were tied in a similar manner, but through the entire extent of the colonnade, and every capital was split, and in some cases fractured badly. Then came the fire of 1577, which ruined the angle of the Ponte di Paglia especially, and when the building had escaped the Renaissance restorers, and the commission of architects decided to restore it as much as possible to its original condition, the five arches at that angle were walled up solidly. This prevented any further deterioration on that side, but the southwest angle, that of the Adam and Eve group, was so weakened that, but for the shoring up, it had fallen into the Piazzetta.

"To remedy all these defects and release the building from the disfigurements of the balks of timber which alone prevented it from falling into the Grand Canal or Piazzetta, it was necessary to remove every column of both galleries and replace every defective stone. The arches were filled up with solid masses of timber, then wedged up till the column and capital were liberated; and this being done by sections, the columns, where found fatally injured, were replaced by new ones, the capitals in the same state were copied, the stones of the arches subjected to the same scrutiny and renewal, and the bed was prepared by the interplacing of a sheet of lead, which, yielding to the pressure, adapted itself to the inequalities of the surfaces and gave an equal bearing. The iron braces were replaced by a system consisting of bronze sockets, let into the foot-stones of

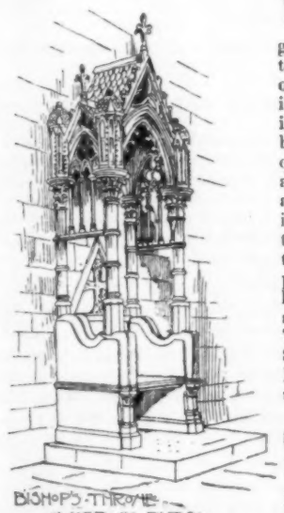
the arch, into which the iron braces were screwed, so as to be removable if in time they were weakened by oxidation and required renewal, and at the same time the strain is removed from the capital, which is a sculptured stone, and thrown on the footstone, which is simple masonry.

"On the southeast corner it was necessary to extend the building twenty-eight centimetres to restore the equilibrium, and for this end it was necessary to renew almost the entire stonework of the arches and entablatures; the foundations had to be strengthened and the whole angle rebuilt. All this has been done, and every column and capital has been replaced, or, if possible, repaired; the walls, where weakened by the fire, have been rebuilt, and the last brace of timber has been removed, so that the old building now stands as no one of this generation has seen it — on its proper foundations. There is still a hoarding around the lower gallery, to enable the workmen who are paving the gallery to work undisturbed, and when this is done the last hindrance to a complete view of the Ducal Palace will be removed.

"But all this was only good and successful engineering. Something more was necessary to restore to us the palace of the fourteenth century. This, too, has been done. The broken capitals, where beyond mending and service, were cemented together and copied with the most absolute exactitude, the great capitals requiring the work of a competent sculptor two years. Where repairs were possible the pieces were brought together and cemented, and bronze rings were shrunk into circular grooves in the upper and lower surfaces of the stone, being first cushioned with lead; the fragments of the ornamentation replaced if existing, and if not by new work, cemented and held by bronze clamps, and so perfectly imitated that very few people who will walk along the colonnade on the Piazzetta will be able to tell which of the capitals are the new and which are the old. I cannot. The stains, the marks of time and weather, have been so perfectly imitated on the new stone that the closest scrutiny is necessary to see what is weather-worn and what is artificially treated.

"There still remains an important change to be made to render the building what it was in the days of the prime of the republic. This is the removal of the partition in the upper gallery, put in only a century or so ago to utilize the space for offices, etc., and now occupied by the library. The Ministry of Public Instruction proposes to remove the library to the Procuratie on the opposite side of the Piazzetta and to throw these rooms open, so that the gallery will be as it originally was, a double gallery. The Ministry of Public Works insists on letting the Procuratie rooms, of which it has the control, for club or commercial purposes, and, as they are the only rooms on the Piazza appropriate for the library, this would compel the keeping of the books where they now are, to the detriment of both library and palace. It is to be hoped that the archæological authorities will prevail over the commercial, for the palace is a national monument of such importance that no motive ought to be allowed to interfere with its perfect restoration and liberty. There is still a family allowed to inhabit the rooms of the palace, to the evident danger of fire, though the orders were given years ago to have all domesticity abolished from its precincts. The new heating arrangements are placed in the basement, and seem to be such as to absolutely exclude any danger of conflagration, the furnaces being surrounded by water, and the heating being done by hot water alone."

LONDON'S WATER-SUPPLY.



WATER is supplied to the millions of London by seven companies, which, for the greater part, draw directly from the Thames in the neighborhood of Hampton. The daily delivery is 150,000,000 gallons. This water is purified by more than 100 filter-beds, varying in size from three-quarters of an acre to over an acre and a half in area. The immense amount of land, capital and labor invested in this work of purification may be understood by noting the following facts relating to the plant of the Southwark & Vauxhall Water Company, one of the seven to which reference is made. These works are located on the Surrey side of the Thames, below Lambeth Palace, the residence of the Archbishop of Canterbury.

They occupy sixty acres of ground in this crowded part of London, which, at its estimated value of $50,000 per acre, means an investment of $3,000,000 for the land alone. The water is pumped up 140 feet at the Hampton intake, and thence runs fifteen miles through a three-foot iron pipe before reaching the filtering-plant at London. The filtered water is again lifted, by Cornish engines, into a stand-pipe 200 feet high, and is thence delivered locally. The water is received from the Hampton conduit pipe into two reservoirs, one holding 18,000,000 and the other 28,000,000 gallons, and is from them admitted to the filter-beds, which are nine in number.

Each filter-bed is in reality a large reservoir with solid masonry walls, containing at the bottom conduits built with open joints for collecting the filtered water. The filtering material (beginning at the bottom) is broken stone of gradually-increasing fineness, then gravel, and finally sand. Such a filter may be seen at Hudson, N. Y., and also at Poughkeepsie, but the English build their filters upon a more substantial basis, and also use finer sand than those above referred to. The depth of water allowed on the filter is four feet. The maximum delivery ever obtained from these nine filters was 125,000,000 gallons in seven days, or thirty-six gallons per day per square foot of surface. An English engineer usually estimates that a filter-bed in good working order should deliver somewhat more than twice this amount.

To clean these nine beds a force of twenty-five men is required, one bed being no sooner cleaned than the men set to work upon the next. These laborers receive about ninety-five cents per day, and the average cost for cleaning is about $30 per bed. The rapidity with which the surface of the bed becomes clogged depends principally upon the season of the year. The greatest difficulty is experienced from March to July, when the upper layer of sand becomes covered with fish-spawn, which quickly arrests filtration and renders it necessary to remove the water from the top of the filter by pumping before the obstructing spawn can be removed with rake and hoe. The loss of time and labor from this cause is a serious item.

From July until October, another difficulty, scarcely less serious, is the growth of vegetation, which begins upon the bottom. This, in like manner, requires removal at short intervals. Even the comparatively mild English winters occasionally give trouble — notably that of 1884, when seventy men were constantly employed removing ice. Despite all these difficulties and at this enormous expense, public sentiment in England so strongly demands a clear, bright and wholesome water that the practice of filtration is becoming general throughout the kingdom. Even in the case of Liverpool, which is bringing its new supply from Vyrnwy Lake, fifty miles away in the Welsh mountains, filter-beds are to be used.

It is odd, in view of the superb results obtained in the purification of the supply of the city of Antwerp, that the expensive open filter-bed should ever again be constructed. The new Antwerp plant is based upon an American patent, and is delivering 3,200 gallons of water per square foot of surface, as against eighty feet, which was the capacity of the old filter-beds previously employed. When choked by dirt, the Antwerp plant is cleaned by reversing the current. Being covered, it does not admit of the growth of vegetation, and its current is too rapid to suffer from the danger of ice during winter. — *W. P. M. in the Troy (N. Y.) Times.*

URANIUM.

THE discovery in Cornwall of a continuous vein of uranium is an event of more importance to the fortunate finders than to the world at large. For, though not without its uses, this once rare metal is not indispensable in the arts. What might have happened had it originally been cheap enough for the purposes of the great industries, it is difficult to say. But for a century it has occurred so seldom, and then only in pockets or patches, that the current price has been something like twenty-four hundred pounds per ton. It will be understood, then, that although a good deal cheaper than either gold or silver, uranium is still valuable enough to render the ownership of a "true fissure vein" a position to be regarded with something like envy even by a reef-miner in Grass Valley, or by the millionaire who measures his wealth by "feet" on the Comstock Lode. In appearance, uranium is of a steel-white color, and hitherto it has been extracted very sparingly from various ores. Of these, the only one which is practically available as a raw material is pitch-blende, the "Uranpecherz"

of the German miners. This mineral is found, associated with lead and silver ores, in various parts of the world, especially in Bohemia, Saxony, and Hungary, in Connecticut, and in the Tincroft and Tol Carne Mines of Redruth, in Cornwall, where it occurs in the shape of greenish or brown-black masses clustering together like grapes. This pitch-blende is, however, almost invariably associated with a host of sulphides, arsenides, and other foreign metallic compounds, so that its extraction is necessarily a troublesome and expensive process. It is, therefore, curious that just one hundred years after Klaproth succeeded in isolating it under a name suggested by the newly-discovered planet Uranus, a lode of unprecedented promise should have been discovered at the Union Mine, Grampound-road, Cornwall. Here the ore, instead of being scattered in "pockets," fills a vein of more or less uniform breadth throughout the "country rock." How continuous it may be it is impossible to predict. But already the prospects are so good that several tons of ore have been banked, the assays reading as high as twelve per cent of the pure metal, and, in some specimens, running up to thirty per cent. It is true that in Bohemia very rich samples have been known to yield eighty per cent, but this was in exceptional cases and in minute quantities, and should the new Cornish lode not run out, the fresh supplies may enable metallurgists to follow up some interesting experiments, which have previously been hampered, not so much by the cost as by the comparative scarcity of the metal.

The various oxides of uranium have long been employed in the arts, more particularly in porcelain painting. Thus, uranic oxide imparts a beautiful golden or greenish yellow hue to glass, while uranous oxide is used in producing the highly-valued black porcelain. In photography, various uranium compounds are in demand as substitutes for the still more costly chloride of gold, and as it forms with platinum and copper two alloys, each having the appearance of the most precious of all the metals, and, in one instance at least, capable of resisting the action of acids, it has been tried with perfect success as a cheap substitute for gold in electro-plating. Finally — and perhaps still more important — as uranium offers a high electrical resistance, it will, doubtless, when available in sufficient quantities, be eagerly seized upon as a useful aid in the electrician's work. Altogether, the discovery made in Cornwall cannot fail to lead to many suggestive experiments and applications. It may also show that the experience of the past is not to be accepted as an infallible criterion of what the future has in store, and that other metals, hitherto regarded as little more than metallurgical curiosities, may in time turn up in quantities suitable for industrial purposes. Take, for example, the metals of the platinum group. Were they found in sufficient abundance, there is little doubt that many of these would be employed in a score of ways, for which their costliness renders them at present inapplicable. The market price of platinum itself ranges from four to eight times that of silver, and of late years the value has been rapidly rising, owing to the increasing demand for platinum vessels, the majority of which are manufactured in England, though the supplies of metal come, for the most part, from Russia. Palladium is still more costly, and owing to its combined hardness and ductility it is in large demand by dentists. It is also used for making the graduated levels of theodolites and other instruments, because, unlike silver, it remains bright in sulphuretted hydrogen. Osmium is not only the heaviest of all known bodies, but the most infusible. However, as it forms a fine alloy with tin, these drawbacks would soon be overcome were the raw material a little more frequent in nature. Osmiridium is harder still. Hence the larger grains are utilized for making the "diamond points" of gold pens, and were it easy to unite the native dust into large masses, the metal, being rather more common than most other members of its group, would lend itself to endless other applications. How far this has been accomplished remains to be proved, though, if we are to credit some recent statements, an American pen-maker has solved the problem by producing a phosphorized osmiridium which can be cast, and pressed, while liquid, "into thin continuous slabs even harder than the native substance, and susceptible of being wrought into drills, knife-edges" and other implements. It may be remembered that the alloy used in the construction of the International geodetic standard was prepared by fusing platinum and iridium together. The result was a metal all but indestructible, extremely dense and rigid, and, naturally, capable of taking a brilliant polish.

These examples may serve as types of many others. For though iron, copper, lead, gold and silver are so extensively used, that is not due to anything in themselves which renders these elements preferable to others known to the chemist. On the contrary, several of them are employed mainly because they are of frequent occurrence, and were any of those rarer metals which we have mentioned to be discovered in as large a quantity, and as easily worked, they might at once replace their older rivals. Gold and silver are, indeed, among the least useful of all known metals, and even in beauty there are others which will favorably compare with them. But they have been so long known, and have so entered into every phase of human life, that their applications are far more numerous than those of any other substance of the same limited occurrence. Moreover, as all races, from time immemorial, have accepted them as the standards of value, they — for a very long time, at least — managed to maintain their price very steadily from year to year. The fall in the value of silver, consequent, amongst other things, on its demonetization in certain countries, has, however, proved that this rate of exchange is purely artificial. Were gold treated with equal contumely, a similar result would no doubt follow. At the same time, it is idle hinting at even a serious proposal of the kind. For, unless the whole of the civilized nations unanimously agreed to impoverish themselves by demonetizing their gold, the fluctuations in value of any possible substitute would be so great that the object aimed at must necessarily be defeated. Nevertheless, it cannot be denied that, from a theoretical point-of-view, gold and silver are among the most wasteful of all metals for monetary purposes. They are too soft to wear well, and hence great loss is constantly being incurred by "sweating," either artificially or accidentally in the course of ordinary transfer from hand to hand. Moreover, being in request as materials for jewelry and for articles of use, immense quantities of these precious metals are continually being absorbed, instead of being applied to the manufacture of currency. A harder metal would be better. This is unquestionably to be found in platinum and its allies. For they do not lend themselves to the jeweller's purposes, and they are all but indestructible. The Russians were so convinced of this that they actually struck platinum coins. But — and their experience shows the difficulty of taking any fresh departure of the kind — they were forced to abandon the practice, owing to the constant fluctuation in the market rate of the metal. When it was cheap the pieces were refused. On the other hand, when platinum rose in price, the roubles were hoarded, or went promptly into the melting-pot. — *The Spectator.*

THE ILLUSTRATIONS

[*Contributors are requested to send with their drawings full and adequate descriptions of the buildings, including a statement of cost.*]

HOUSE OF FREDERICK A. BROWN, ESQ., ASHEVILLE, N. C. MR. HENRY RUTGERS MARSHALL, ARCHITECT, NEW YORK, N. Y.

[Gelatine Print, issued only with the Imperial Edition.]

THE SCULPTURE ON THE GAMBETTA MONUMENT, PARIS, FRANCE. J. P. AUBÉ, SCULPTOR.

See article elsewhere in this issue.

THE TOMBS OF AYMER DE VALENCE AND EDMUND CROUCHBACK IN WESTMINSTER ABBEY, LONDON, ENGLAND. AFTER AN ETCHING BY MR. AXEL HAIG.

See article on "Equestrian Monuments," elsewhere in this issue.

THE TOMB OF KING LADISLAUS, NAPLES, ITALY.

See article on "Equestrian Monuments," elsewhere in this issue.

THE MONUMENT TO THE DUKE OF WELLINGTON IN ST. PAUL'S, LONDON, ENGLAND.

This illustration is reproduced from the *London Illustrated News* in connection with the article on "Equestrian Monuments," elsewhere in this issue.

TOMB OF THE DUC DE BRÉZÉ IN THE CATHEDRAL, ROUEN, FRANCE.

See article on "Equestrian Monuments," elsewhere in this issue.

THE GRANT MONUMENT COMPETITION.

THE secretary of the Grant Monument Association desires us to state that the recent publication of certain designs by the *New York World* and *Harper's Weekly* as those premiated by the experts, was entirely unauthorized and done against the protest of the committee. He says the report of the Expert Board is still before the committee, and has not yet been definitively acted upon.

Sun-Dial Mottoes. — Nor has other rollicking fun and free play of lighter merriment been altogether chastised out of the sun-dial. Evidence of that is got in the supposed Welsh inscription to the sun, or to man, deciphered in Dean Cotton's garden at Bangor: "Goa bou tyo urb us in ess," the interpretation of which can be learned in the wholesome mirth attending the origin of another motto. When one was wanted for Inner Temple Terrace dial, and the artist went by arrangement to hear what was fixed upon, a testy old gentleman, to whom the question was put, cried: "Begone about your business!" The artist took that as his answer, and painted the words. They were approved by the Benchers, and have been repeated on a dial at High Lane, Cheshire, on the gable of a cottage between Stockport and New Mills, at the Church of Bury St. Edmunds, and at Chesterton Church, Warwickshire. — *The Gentleman's Magazine.*

EQUESTRIAN MONUMENTS.[1] — XXI.

DUAL EFFIGIES.

Apollo: Decoration by Lemaire in the Palais d' Elysee, Paris. From the *Revue des Arts decoratifs.*

IT may be remembered that, in describing the monuments to the Scaligers at Verona and the Duke of Brunswick at Geneva, attention was drawn to the fact that mortuary honor was done to the individual to whom the monument was erected by immortalizing him in two effigies: one the calm, jacent figure, with placid face and folded hands, resting upon the lid of the sarcophagus, the stereotyped reminder of the grim, mouldering frame, similarly posed, that lay within the sculptured sepulchre just below; the other an equestrian figure representing the departed great one in the full bloom of vigorous manhood. This affluence of portraiture is not a common feature of monuments or tombs, and there are not many cases where a recumbent figure has as a foil an equestrian figure above it; yet there are several, and these monuments rank amongst the most notable in the world.

There is one such monument where the subject, in this case a kingly subject, is represented in sculpture not twice, but four times. It is in the Church of S. Giovanni à Carbonara at Naples that this remarkable structure is to be found, and it is an interesting example of the transitional period which the gilding and brilliant coloring of a Southern Italian Catholic church neither mars nor adorns. The tomb of Ladislaus, King of Naples, is, perhaps, the most elaborately be-sculptured tomb in existence, and is, indeed, a notable monument for a sister to erect to a brother's memory. The sarcophagus, with its superposed figure sheltered behind half-drawn curtains, after the Veronese manner, occupies the middle of the composition. Beneath it, in the central opening of the arcade, are the seated figures of the King and his mother, supported on either hand by similar seated figures of Royalty, Faith, Hope and Charity. This arcade is supported in its turn by large caryatid figures of Temperance, Prudence, Justice and Fortitude, between the middle pair of which is the doorway leading from the choir to the sacristy. The niches are filled with statuettes of saints, fathers of the church and emblematic figures, while there is a profusion of other sculpture wherever opportunity offers. The whole composition is crowned with an equestrian figure of the King, somewhat less than life-size, the horse disguised beneath a horse-cloth, and the man waving an uplifted sword in token of a successful and warlike career, though a short one. The King is represented a fourth time as one member of a bas-relief group at the back of the niche in which the sarcophagus rests, which seemingly is watching over the sleeping figure, though it may, perhaps, symbolize the resurrection.

The monument is the work of Andrea Ciccione, who was assisted by Scilla, a Milanese sculptor.

In Westminster Abbey, grouped together, are two tombs, more modest and vastly more pleasing than this elaborate Neapolitan mausoleum, upon which also color was originally used, but where it takes an antiquary's skill now to find a trace of it. The equestrian sculpture which here entitles these tombs to a place amongst double-effigied monuments consists, in the case of the tomb of Aymer de Valence, as well as in that of Edmund Crouchback, Earl of Lancaster, merely of little bas-reliefs in the quatrefoils which ornament the heads of the canopy gables. Both of these tombs have been much injured, probably during the preparations for one or another of the coronations that have taken place since they were set up, and parts of these little bas-reliefs have shared the fate of more salient bits of carving. The tomb of De Valence fell into such disrepair that it came near being displaced in favor of the great monument to General Wolfe. Fortunately, Horace Walpole's protest — a disinterested one, since he intended, if his appeal were disregarded, to make it an added attraction to the grounds at Strawberry Hill — was heeded and, instead of being destroyed, it was restored.

Crouchback's monument, however, still waits the repairer's care. This monument might have been included amongst the Crusaders' monuments, though historians are uncertain whether the crossing of his feet and the cross on his cloak mean that he really accompanied his brother Edward when, as Prince of Wales, he crusaded against the Saracen; or whether, after the fashion of the day, he obtained from the Pope the right to wear the cross without actual service in return for a payment in coin of the realm.

[1] Continued from page 135, No. 717.

The introduction of the horse in sepulchral sculpture has not only the warrant of a high descent from the pagan myths of antiquity, but is also directly connected with the sacred fabric through a

Sir Richard Stapleton. Exeter Cathedral.

mediæval custom which benefited the churchmen themselves, the temporary guardians of the structure. In those times it was in some places the custom that, when a knight died, his horse was led behind the bier to the grave, and then not slaughtered there as a sacrifice to the gods, as would have been the case in still earlier days, but, instead, turned over to the monks or priests for their use and profit, and so became the property of the church. It may be this custom that allowed the introduction on the tomb of Sir Richard Stapleton, in Exeter Cathedral, of the forepart of a horse led by attendant figures, which is placed at the feet of the recumbent Sir Richard. Or, as the knight's head is raised on three pillows just enough for his eyes to rest upon the horse's head, it may be that there is some forgotten tale of service rendered by beast to man which made the master unwilling to lose sight of his faithful servant even in death.

Many of the horses represented in equestrian sculpture must be portraits of actual animals, and so associated by history or legend with the rider, and some of them would doubtless be curious and amusing if they could be known. The Rev. R. H. Barham, the writer of the "*Ingoldsby Legends*," at any rate, has made an interesting story out of the legend that accounts for the placing on the tomb of Sir Robert de Shurland, in the Minster Church in the Isle of Sheppey, in Kent, of a piece of equine sculpture similar to that which fronts the loving gaze of Sir Richard Stapleton. It seems that one day, in a fit of rage, Sir Robert de Shurland caused a priest to be buried alive. For this he was not allowed to suffer the pangs of slow-growing remorse after the good old fashion of retributive justice, for the churchmen were powerful enough to press the matter to an issue somewhat more speedily than a callous conscience would allow it to be brought about, and, in consequence, Sir Robert found that he was in a very unpleasant position, and in immediate peril of falling into the hands of the officers of the law. Just at this juncture he heard that the king was aboard a ship then lying at the Great Nore, off the Isle of Sheppey, and he felt that could he but obtain an audience, he could so state his case as to obtain the royal pardon and safeguard. No time was to be lost, and as there was either no boat at hand, or else no boatman or no breeze to fill her sails, he was in a quandary how to reach the king, until at last his eye fell upon his horse, and he at once conceived that in him lay his only chance of pleading his case that day. Mounting, he rode his horse into the water and then forced him to swim out to the ship and on reaching it, while still on his generous-spirited beast's back, prayed the king's pardon for having performed the rite of burial before nature had provided a corpse. The king, moved by the ingenuity of the plea, or influenced by admiration of the daring of the man and courage of the horse, granted his prayer, and Grey Dolphin carried his lighter-hearted master safely to shore again. As they emerged from the sea they were met by a witch, who sneeringly declared that, though the horse had saved his rider's neck this time, he would yet cause his master's death. His exultation chilled to sudden dread, Sir Robert showed how heartless a villain he was, for, with the quick impulse of selfishness, he decided to give fate no chances, and, dismounting, slew his gallant horse before he had recovered his breath after his great feat. Years after, Sir Robert, as he strolled with a companion on the beach, came upon the horse's skeleton, just uncovered by a shifting of the sand, and, naturally, at once fell to telling how cleverly he had made the witch's prediction futile. As he finished the tale, he gave the horse's skull so hearty a kick that a splinter of bone entered his foot, and shortly after blood-poisoning brought about the fulfilment of the prophecy.

If we may suppose that Sir Richard Stapleton is gazing lovingly upon a favorite horse, we may also suppose that a churchman's malice sought to join an added terror to Sir Robert's torments by setting Gray Dolphin's head on his monument.

Legends of a gentler nature surround the beautiful tomb of the Duc de Brézé in the Chapel of the Virgin in the Cathedral at Rouen.

Those who would curiously inquire into the social life of the times of the Italian and French Renaissance would find a very vivid picture set before them in the autobiography of that prince of scoundrels, but most cunning master of his art, Benvenuto Cellini. In these pages will be found a description of the many things which Henri II commissioned him to execute for the pleasuring of his mistress, the beautiful Diana of Poitiers, Duchess of Valentinois, who, though twenty years her royal lover's senior in age, yet so preserved her beauty and exercised her great intelligence and wit, that she held at sixty years of age as much influence over him as when in the full-bloom of beauty she yielded to his advances more than a score of years before. Henri, as Dauphin, sought her as a toy, but he found that he had won more than that, and in place of a mere distraction for the moment, he soon discovered he had secured a friend and adviser, who was later held to be worthy of a seat at his council board, and her advice, sometimes judicious and sometimes ill-considered, was more certain of being followed than that given by the other members.

How far one is justified in feeling that a woman who has once lapsed from virtue must always have been giddy is questionable, but the tendency generally is to deprive the woman of the benefit of the doubt, and the fact that Diana attracted the attention of the woman-loving Francis I at the time she successfully pleaded before him for her father's life is, perhaps, a reason for suspecting that her subsequent marriage to Louis de Brézé, a man forty years her senior, may have been one of those cases where a king rewarded a courtier and provided for a discarded fair one at one and the same time. Her life as the wife of De Brézé was blameless, so far as known, and feeling, perhaps, that her career was run she ostensibly prepared to spend the remainder of her life as a widow mourning faithfully her departed spouse. At any rate, this was her intention as declared in the inscription that overhangs the sarcophagus of Louis de Brézé, Count of Maulevrier:

> "Hoc, Lodoice, tibi posuit Brezeæ sepulchrum
> "Pictonis amisso mœsta Diana viro,
> "Indivulsa tibi quondam et fidissima conjux
> "Ut fuit in thalamo, sic erit in tumulo."

It was at that time her intention, perhaps it was really her hope, that her ashes should mingle with those of her spouse placed beneath this glorious monument, but she reckoned without the ardor of a gallant young prince, and the duty which she, as a properly-bred subject, must render on demand. Her mourning did not last many years: hardly long enough to see finished the monument which was under construction from 1535 to 1544.

The monument is the work either of Jean Goujon or Jean Cousin, or possibly of both. Authorities seem to incline to the belief that it was Cousin who did all or the main portion of the work. It is one of the small class where the sculptor has, generally following the instructions of his patron, done nothing to disguise the disagreeable side of bodily dissolution. The recumbent effigy of De Brézé shows, not the stereotyped figure decently draped, with features settled into the calm of death, but the sternly realistic form of an aged man, emaciated by sickness, lying half-naked on his couch, and with one hand feebly clutching at his breast as he draws his last breath, the outlines of his lower limbs revealing themselves beneath the disarranged sheet, and the brow bearing the imprint of the final struggle. This figure is of white marble, while the figure of Diana herself kneeling at his head and the figures of the Virgin and Child at his feet are of alabaster. The four Corinthian columns, between which lies the sarcophagus, are of black marble, with caps and bases of alabaster. Above in a niche is the life-size equestrian figure of De Brézé, panoplied in full armor as became the Grand Seneschal and Governor of Normandy, and an honored servant of his master. The caryatid figures at the right represent Prudence and Glory, the pair at the left symbolize Victory and Faith. Higher up in the niche that crowns the composition is a seated figure which is indifferently called Force, Justice and Prudence.

In its conception, in its execution, in its coloring and in its association of ideas it is one of the most notable sepulchral monuments that exist, and one cares not whether it was erected hypocritically as a disguise for future misdoing or in all faith and earnestness of purpose. Diana of Poitiers was not the only woman who saw fit to change her mind, and as she found good reason for not eschewing male society as she intended, so she probably found as good reason for not arranging that her body should be placed beside her husband's, as the inscription there promises. She was buried at Anet, where Henri had built her one of the most beautiful palaces of the French Renaissance period, whereon appeared with profusion the well-known monogram of king and mistress, and where Cellini executed some of his most cunning designs.

The other monument which finds a place in this group, owed its being to quite another sentiment. In 1852, Arthur Wellesley, Duke of Wellington, was carried to his tomb in St. Paul's, with perhaps, more of pomp and ceremonial than ever before any Englishman of less than royal birth was honored with. The great expense of the pageant was met by a Parliamentary vote of public funds, the size of which may be guessed from the fact that four years later there was found to be an unexpended residuum of £20,000 — a fact that the American committee-man of to-day will find inexplicable. Instead of covering this balance back into the treasury, it was decided to use it in the erection of a suitable monument to the Duke and a competition, with a first prize of £700, was opened to all the world. The final outcome was an amusing exemplification of the adage "the last shall be first," for Alfred Stevens, to whom the work was at length entrusted, gained only a minor prize of £100 in the competition, while the first and second prize-men, W. Calder Marshall and W. F. Worthington, in place of being allowed to carry their own designs into execution were obliged to content themselves with modelling each a bas-relief to be set in the rear wall of the chapel in which Stevens's monument now stands in the south aisle of St. Paul's. This substitution was brought about by the action of Lord John Manners, a most masterful man, and in 1858 at the head of the Office of Works. Up to this time nothing had been done in the matter beyond paying the prizes, but Lord John shortly after his installation in office got out the designs looked them over and decided that Stevens's was unquestionably the one to be executed, and accordingly made a contract with him to carry out the work for the £14,000 which was all of the original sum that the commissions to the disappointed first and second prize-men would leave. It was made a condition that a full-size model should be set up in St. Paul's before the work went farther, but during the eight years Stevens was working on his model this condition was forgotten and the model never left the sculptor's studio. In 1867, the sculptor was ready to begin on the actual construction, and work on it progressed steadily at first and then at uncertain intervals as the state of his failing health would allow. Fortunately the monument was so far completed at the time of his death, in 1875, that it was possible for his pupil. Mr. Hugh Stannus, to finish it — but not in its original integrity. Lord John Manners was not the only man who held the Office of Commissioner of Works who had an inflexible belief in his own judgment and taste. Mr. Ayrton who held this office at a latter date, if half the many stories narrated of him are true, must have been about the most pig-headed official who ever had the chance to work injury to art. He decided that it was wholly out of the question that a monument to be set up in a consecrated edifice should be surmounted with an equestrian group — and in this decision he was supported by the Dean of St. Paul's, and so it came about that the monument was deprived of half of its intended excellence; for good as the architecture and sculpture of the finished portion are, it was generally understood that Stevens intended that the equestrian group should be the part to stamp the whole with the individuality desirable in a public monument to such a man. It is more than likely that this enforced mutilation of his design, together with the placing of it in a side chapel only 57 x 25 feet and 43 feet to the vaulting, a height which is nearly entirely taken up by the present unfinished structure, had much to do in bringing about Stevens's death. The monument was designed to stand free, in the space between a pair of the nave piers. Shortly after the sculptor's death, English artists joined in a general petition to the Commissioner of Works that the equestrian group should be cast and set in place, so it is still possible that the design may be completed. At any rate, there is sufficient reason for including it with the other dual effigies.

[Correction. — In the last paper of this series the name of the sculptor of the statue of Baldwin, of Flanders, was given as Hector Lemaire: it should have been credited to J. J. Jacquet.]

Ladislaus. — King Ladislaus was a proud, ambitious, prodigal and dissipated man. He died at the early age of thirty-six, A. D. 1414. He was called "The Victorious." After the death of his father, Charles III, his mother became regent and an opposite party proclaimed the son of the Duke of Anjou King. As Ladislaus advanced to manhood, he displayed superior qualities, and by degrees drew the nobility to his flag. He finally captured his native city and was proclaimed King. He also, after once unsuccessfully attempting it, finally captured and plundered Rome. Ladislaus conceived the project of the unity of Italy which was not realized till four centuries after his death.

Ciccione. — Ciccione is also the author of a monument in the same church to the Grand Seneschal Gian Caracciolo and is said to have built the churches of Santa Marta and Monte Oliveto in Naples.

De Valence. — Aymer de Valence, Earl of Pembroke, was the son of William de Valence and cousin to Edward I. He was much employed as a general in the wars with Scotland where he captured and put to death Nigel, the brother of Robert Bruce. He also took part in the punishment of Piers Gaveston, the unworthy favorite of Edward II, and in 1321 assisted that monarch to defeat the confederate Barons at Pontefract, and to execute their powerful leader, Thomas, Earl of Lancaster. Aymer de Valence was assassinated in France in 1323, it is thought by some in revenge for his share in the death of Earl Thomas. Others say that he was killed in a tournament which he held in honor of his (third) marriage with a daughter of Guy de Chastillon, Count de St. Pol.

Crouchback. — Edmund Crouchback, Earl of Lancaster and the founder of that great House, was the second son of Henry III and was born in 1245. When Crouchback was but eight years old Pope Innocent IV sent him a gold ring investing him with the sovereignty of Sicily and Apulia but, he failing to support this claim, the grant was revoked by Pope Urban in 1263. He accompanied his brother Edward, then Prince of Wales, to the Holy Land on a Crusade.[1] His first wife was Aveline, daughter of the Earl of Albemarle, who lies close by. Blanche, Queen of Navarre, was his second spouse and with her he lived for a time at Provins, from whence they brought the famous red roses planted there by Crusaders from Palestine and destined to become the Lancastrian badge. Crouchback died in 1296 at Bayonne, after an unsuccessful attempt to conquer Guienne.

Shurland. — Sir Robert de Shurland, Lord of Shurland, in the parish of Eastchurch, adjoining Minster, was the son of Sir Geoffrey de Shurland, who was Constable of Dover Castle in the time of Henry the Third. Sir Robert was Lord Warden of the Cinque Ports; and was made a Knight Banneret by King Edward the First for his brave deportment at the siege of Carlaverock in 1300, and was probably a benefactor of the monastery of Benedictine Nuns at Minster, in Sheppey.

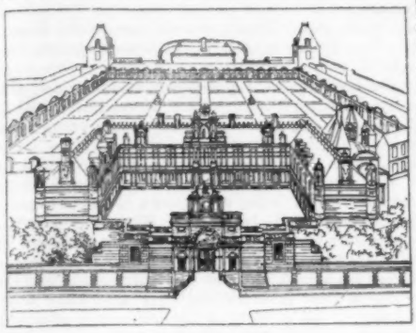
Duc de Breze. — Louis de Brézé, who was Count of Maulévrier, Grand

[1] Stothard, however, says "In 1269 he was marked with the cross at Northampton by Ottobon, the Legate of the Pope, with his elder brother Edward, the Earl of Gloucester, and many other nobles of the land: one of those nominal crusades which procured for the See of Rome so many golden crosses in current coin."

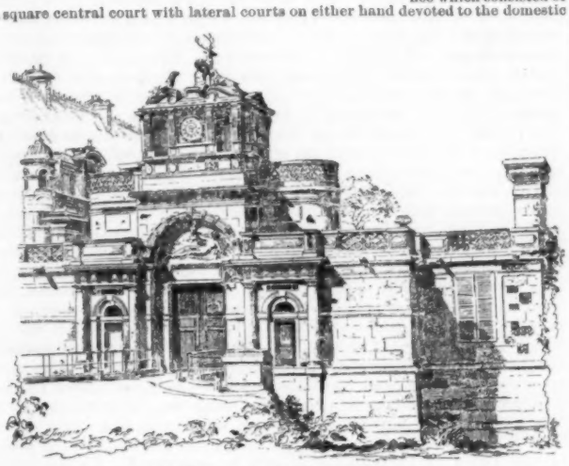
Seneschal and Governor of Normandy, grand huntsman of France and first Chamberlain to the King, and held many other high offices, died in 1531, aged 72. His second wife was Diana de Poitiers, mistress of Henri II.

DIANA DE POITIERS. — A beautiful French lady, born in 1499. Having been left a widow by the death of her husband, Louis de Brézé, in 1531, she soon after gained the affection of the King's son, who in 1547 ascended the throne as Henri II and gave her the title of Duchess of Valentinois. She had a complete ascendency over the King, who allowed her to exercise royal power and to control even the foreign policy of the Government. De Thou attributes to her the misfortunes of Henry's reign and the persecution of the Protestants. By her graces and talents she retained her influence over Henry until his death in 1559. She died in 1566.

ANET. — It was at the old château at Anet that Diana first entertained her youthful lover and it was only natural that at that place he should build the more sumptuous palace for her which is looked on as the special glory of the architecture of that time. In 1548, Philibert de l' Orme began to execute his design, and it was hardly finished in 1552. In certain ways he was obliged to adapt his fancy to the foundations of the older work and complained loudly because of it, and more at having to preserve some portions of the old work, particularly that part in which, in the Spring of 1535, the Dauphin first passed the night. In spite of this the architect accomplished a most imposing edifice which consisted of a square central court with lateral courts on either hand devoted to the domestic



Chateau d' Anet.[1]



Main Entrance to the Chateau d' Anet.[1]

portion of the inhabitants: behind the building, full width, stretched a large garden surrounded with open galleries and at the extremity stood a large loggia, which was used as a bath, with a semi-circular basin behind it into which cascades poured from the building above. The entire structure was surrounded by a moat and entrance was had over a drawbridge, which at the end of the seventeenth century was replaced by a stone bridge: this principal entrance is the one which is so frequently illustrated, containing as it did in the tympanum of the arch Cellini's well-known bas-relief of the "Nymph of Fontainebleau" with the group of stag and hounds surmounting all. At the back of the court of honor was the pavilion, the façade of which now stands in the court-yard of the Ecole des Beaux-Arts. The left (west) wing, the chapel and the entrance are all that is now left of this sumptuous palace. In the left-hand court-yard was the famous fountain by Jean Goujon, decorated with the nude statue of Diana of Poitiers herself leaning with an arm affectionately cast about the neck of a stag of ten tynes, — the group is now in the Louvre. At the death of Diana the palace became the property of her daughter Louise de Brézé, whose son Charles de Lorraine, one of the most prominent leaders of the League, was dispossessed

Diana's Fountain.[1]

[1] From "*L' Encyclopédie de l' Architecture et de la Construction.*"

of it in 1595, and in accordance with the law, if it had been followed to the letter, the palace should have been razed to the ground as belonging to one attainted with high treason. But Charles, who escaped to Brussels, and so was executed only in effigy, was no more lucky than his palace, for Henri IV expressly prohibited its destruction. But it fell into the hands of a creditor of Charles de Lorraine, the Duchess de Mercœur, in 1615, and she caused her daughter to marry the natural son of Henri IV and Gabrielle d' Estrées, César, Duc de Vendôme, whose grandson was the famous General Louis Joseph de Vendôme. At her death his wife bequeathed the palace to her mother, the Princess of Condé, and in 1734 it passed to the Duchess of Maine. It then passed under several different owners, amongst others Louis XV and Louis XVI. The latter restored it to the Duc de Penthièvre, Grand Admiral of France, who repaired it with utmost care. In spite of being a Bourbon Prince, the Grand Admiral was universally beloved, and consequently was not disturbed during the early years of the Revolution, so that he died there in peace. The place was then declared National property, sold at auction and fell into the hands of certain bankers who dismantled it by selling to the curator of the museums such decorations and works of art as the public collections desired, and then began to tear it down with the mere object of selling the stones as building material. The work proved slow, tedious and expensive, and finally in 1810, the contractor without telling any one what he intended to do, blew up a portion of it with a heavy charge of powder. This outrage stirred the people to open protest and finally, in 1811, the work had to be abandoned to avoid a riot. Fortunately, the demolition had begun with the rear-most buildings. In 1820 the Duchess of Orleans bought the place for $32,000, and once more it began to change hands with some rapidity. In 1844 the chapel was restored, and in 1852 the entrance was restored under the supervision of the Commission on Historic Monuments. In 1860, the left-hand wing was restored by the present proprietor, M. Ferdinand Moreau.

GOUJON. — Jean Goujon is thought to have been born about 1520, though the time and place of his birth are still uncertain. His name appears in the accounts of the church of St. Maclou at Rouen in 1540, and in the following year he worked in the cathedral of the same town. He was afterwards employed by Bullant on the Château d'Ecouen and by Lescot on the restorations of St. Germain l' Auxerrois. Four bas-reliefs of the Evangelists made for the gallery of this church, are now in the Louvre. In 1547 there was published Martin's French translation of Vitruvius, with illustrations by Goujon. His principal works are those on the Louvre, including the carvings of the southwest angle of the court, the reliefs of the Escalier Henri II, and the Tribune des Cariatides; the reliefs of the Fontaine des Innocents and of the Hôtel Carnavalet, at Paris; and the group of "Diana with the Stag," executed for the Château d' Anet which was built for Diana of Poitiers. This is now in the Louvre. Goujon was a Huguenot and is said to have perished in the Massacre of St. Bartholomew's day, 1572.

COUSIN. — Jean Cousin was born at Soucy, near Sens, about 1500 and died about 1589 at Paris. Little of his life is known with certainty, except that his first occupation was glass painting at Sens, and that afterwards he was established as a goldsmith at Paris. He was both painter, sculptor, architect, engraver, mathematician and writer. The only authentic painting by his hand is the "Last Judgment," now in the Louvre, though various other subject pictures, portraits and miniatures are attributed to him. Of his glass paintings, the finest are the windows of the Sainte Chapelle at Vincennes. Other windows by him are at Sens Cathedral and the Château d' Anet and the Church of St. Gervais at Paris, possessed glass paintings by him. Those at the latter place were destroyed about 1775. Cousin's most famous sculpture, apart from the De Brèze tomb (if that be his work), is the recumbent figure of Philippe de Chabot, Admiral of France, now in the Louvre. Cousin engraved on metal and left several etchings. It is by his designs for wood-cuts, some of which he himself engraved, that he is now best known. They include illustrations of the Bible, the "Songe de Poliphile," and the "Metamorphoses" and "Epistles" of Ovid. Among his written works are a "*Book of Perspective*" and a "*Book of Portraiture.*"

STEVENS. — Alfred George Stevens was born in Blandford, Dorsetshire, in 1817. At an early age he displayed marked talent in the direction of art and was sent to Italy by a generous patron, the Rev. Samuel Best. There he remained some ten years, studying and copying the works of the old masters and also in the studio of Thorwaldsen, who gave him several commissions. Returning to England in 1843, he was given an appointment in the Government School of Design at Somerset House, but after a few years removed to Sheffield, where he produced a quantity of decorative designs for a firm of stove and grate manufacturers of that town. Going back to London in 1851, he divided his time between minor decorative work and ambitious designs for various national competitions, among them being the new Foreign Office buildings and the memorial of the Exhibition of 1851. He also produced a scheme of decoration for the great reading-room of the British Museum and one for the dome of St. Paul's Cathedral, together with a design for bronze doors for the Geological Museum in London. None of these were carried out, except that Stevens's figure of "Isaiah" for St. Paul's has been executed in mosaic by Salviati and placed in the dome. In 1858 Stevens received the commission for the monument to be erected in St. Paul's to the Duke of Wellington. This is his most famous work and next are some decorations in Dorchester House, in Park Lane, London, the residence of Mr. R. S. Holford. The chief of these are a marble mantelpiece supported by two female figures and a sideboard in walnut, both in the dining-room. Among the minor works of Stevens are portions of the railing and the great grille of the British Museum; a diploma for the Exhibition of 1862; some admirable portrait busts; and numerous designs for house decoration, furniture, porcelain, and metal work. Stevens believed in the unity of art and like his great model, Michael Angelo, was at once painter, sculptor and architect. Nothing was too small or insignificant for him to lavish all his art upon and nothing was beyond his powers. He died in 1875.

(To be continued.)

ARCHITECTS' NAMES ON BUILDINGS. — Among those whimsical absurdities to which custom reconciles us is that of inscribing the name of the architect and the date of a building, not where they can be seen, and convey such information at a single glance, but where they must remain unseen forever, namely, on the foundation-stone. Surely this practice must have been of Irish origin, since a more blundering one, and one more contrary to the plainest common sense, can hardly be conceived. It is all very well to bury underground the names of lord mayors, or other official worthies and dignitaries who assist at the ceremony of laying the first stone, because it matters not how soon they and everything relating to the childish silver-trowel part of the business are forgotten; but that there should ever be any mystery or room for doubt as to who was really the architect of a building, when all uncertainty might be obviated by a mere name and date, is quite preposterous. Besides which, it is very likely to happen, and often does happen, that a structure is either rebuilt, or nearly, on its old foundations, and in such cases what becomes of the veracity of the inscription on the foundation-stone, should it ever come to light at all? Had architects invariably made it the practice to affix their names to their works, we should now be at no loss to know who we are indebted to for those noble fabrics of olden time which are the admiration of all. Why it should not be done I do not understand, when every engraver puts his name to the plates he executes. Neither would there be any occasion that the architect's name should be ostentatiously displayed; for were it cut merely on the lintel or architrave of a door, the plat-band above a basement, or some member of that kind, it would not obtrude itself on the eye, nor discover itself till sought for. — *W. H. Leeds.*

ARCHITECTS AS AGENTS.

TO facilitate business, and as a more convenient form of undertaking the duties of the architect, there are many who accept commissions, and then contract with artists and tradesmen to carry out the work. In this manner the duties and responsibilities of the architect are, if not legally, practically shifted to another party, who undertakes to carry out the intentions of the architect upon his own responsibility. We have no intention here of expatiating on the advantages this sort of "sub-contracting"—to use a phrase that applies more correctly to the work of the builder than to the architect—offers to one who is ready to carry on his profession on an expeditious and commercial principle. The architect's labor is minimized, the details, at least, of the design are furnished, and his deputy has nothing more to do than to perform his work in a business and perfunctory manner, quite regardless of high scruples or the nicer dictates of conscience. He submits a design or specification to his employer for carrying out the work at a given amount, offering to do anything to meet his approbation or approval. The contract is sealed between the parties—virtually the architect and tradesman, nominally the employer and tradesman. The difference between this and the usual and proper form of contract is that the architect and contractor are virtually one; their interests are almost the same, for the architect accepts the design and workmanship of the contractor, instead of preparing his own design and specification, and in this capacity he takes the place of a middleman, acting merely as the agent between employer and workman. It may be argued that in a large number of cases the "employer, architect and contractor" arrangement, in which the architect acts as independent artist and mediator, is practically the same as the above-mentioned transaction, inasmuch as the busy practitioner has little time to examine the work and to exact the terms of his own specification; that, practically, the contractor does very much as he likes. No doubt he can. Very often, although bound by contract to conform and comply with the architect's design and instructions, he uses his own discretion, and the building is really very little better than what the contractor cares to make it for the sum at his disposal. Not only may we acknowledge the force of this assumption, but we have practical evidence that in several instances the architect's intervention has been of very little account in the total result, and it is necessary to point out under what circumstances the agent-architect may act as efficiently as the individual who prepares a design and specification for a work which undergoes various modifications in its execution. First, we may bring to the reader's notice a class of architectural work which can be more skilfully and efficiently accomplished by the specialist who has devoted his whole life's study to the subject. Let us, for example, take the work of the art-decorator. Scarcely one out of ten architects have made the question of decoration and color a subject of study—not a very flattering admission to make as to a profession which ought to include the subject of decoration as a special branch. So it is, however. The practical requirements of building and surveying have been the all-absorbing questions, leaving very little opportunity, and often, we regret to say, very little inclination for art attainments. Probably it is no libel on the practical architect to say that he is quite unqualified to suggest a scheme of decoration for a house he may have designed and carried out, certainly incompetent to prepare a design for the decoration of a church or public hall. What should a man versed in construction, building materials and measurements understand about primaries and complementaries, harmonies and contrasts? Keys, tones and shades are almost mysteries to him. In this department of the profession, therefore, the experienced decorator has more skill, and presumably more taste, than the ordinary architect, and is, consequently, more fitted to design a scheme of color-decoration and specify for its proper execution. If the architect interferes he may do injury. At the present moment we know of at least two public undertakings of a decorative character that have been placed in the hands of one of our leading firms of decorators, and who are associated in name more than in reality with well-known architects in the conduct of the work. In these cases the architects of the respective buildings have advised generally, their names being a guarantee of the design and efficient execution, though the whole scheme has been practically left in the hands of the firm of decorators. The general scheme has been submitted to and approved by the architects whose names are connected with the work, but the details, and selection of the style of ornament and selection of colors, have been left to the artists, and the results in both cases are eminently successful.

In artistic ceramic work, the ordinary practitioner would do well to obtain some technical advice before he prepares a design, and here, also, the specialist is better able to advise and to write the specification. In stained and painted glass-work, the taste and skill of the glass-painter, the knowledge of ecclesiastical symbolism and of the glass-work of the Middle Ages are necessary to the preparation of a design for a series of figure-subjects for a church. Few architects would consider themselves competent to prepare such designs or equal to the task of instructing the artists, and this class of design is left to the taste and advice of some well-known artist and manufacturer. Ecclesiastical woodwork is another class of art-design which the ordinary architect understands very little about. May he not, therefore, be doing both justice to himself and client if he obtains other advice, and places his rough ideas in the hands of the ecclesiastical furnisher? The worker in brass and iron must know more about the technical points of his trade than the architect is expected to do. Now in all these cases the expert is naturally more skilful, and must be expected to know more about the points of good design than the architect himself. Yet custom has placed all these special artists under the control of one individual, whose designs and instructions they are supposed to carry out. Practically, as we have shown, these experts have their own way. Indeed, the manufacturer, in the plenitude of his power, is apt to ask why it is the employer is so short-sighted as to have engaged a person to design and prepare specifications for work about which he knows nothing, which he could have carried out equally as well, if not better, single-handed. One often hears these remarks, and the answer to them is, briefly, that the executant is not always the most capable of advising on the general design; that the architect, by his general knowledge of the building and his client, is more capable of ordering the work, leaving the details to those who are entrusted with the execution. On the other side of the question, there is, we admit, a danger in thus placing one's self unreservedly in the hands of the contracting firm. The decorator may prove arbitrary and dictatorial, and make it very difficult for the architect to assume authority over a matter which he has delegated to another. The architect, perhaps, has left everything to the judgment of his colleague, and has no power to interfere. Designs and specifications have been prepared by the contractor, who undertakes to carry them out for a certain sum. The terms of the agreement are here important, and ought to be framed in such a manner as to give the architect the power of making any slight modifications that may be suggested. The approval of the scheme of decoration is even more essential; the architect should take the trouble to satisfy himself of the soundness of the proposals offered to him, and even consult a competent person if his own taste is not to be relied on. If possible, the architect should give a rough design of the scheme, and make it the basis of the drawings or cartoons submitted to him by the artist. An able and respectable firm should always be engaged, more especially if the work is to be left entirely to them. The difficulties and want of agreement between the contractor and the employer arise mainly from the want of arranging the preliminaries. In the early drawings of a building that is intended for decoration, attention ought to be given to the subject; and an early consultation with the artist to be employed, before the details are finally agreed to, would save many awkward misunderstandings.

The design of constructional ironwork is a matter about which the architect knows very little as a rule. We will suppose that the architect is preparing a design for a corn-exchange or market, over which an iron roof or domical centre-lantern is intended. Is he justified in conferring with an expert or engineer before he completes his design, or should he finish his plans and submit them to the engineer to prepare the necessary details for the ironwork? The answer will be a matter of individual competence. The properly-qualified architect ought to be able to complete his general design in all essential points, and then consult the engineer about the details, the sizes of members to bear certain strains, and the details of putting together. It would be wiser for the younger and inexperienced architect to obtain the advice of the engineer before the plans and sections are finally inked-in, to allow any suggestions to be made. The detail drawings may be left entirely to the engineer to prepare with his specification and estimate; or the architect may ask an engineering firm to make a design and estimate for the work complete, in which case the architect simply acts as an agent for his employer, but cannot be credited with the design, so there are degrees in which the special work is delegated. It is well-known that the late Sir Gilbert Scott obtained the advice and assistance of an eminent engineer in the design of the great pointed, ribbed roof over the Midland Railway terminus in the Euston Road, and also in the strengthening of the spire of Salisbury Cathedral—works which reflect credit on

both architect and engineer, combining, as they do, the results of the highest architectural taste and constructive skill.

These arguments only prove that the architect's work must, as a matter of necessity, be made up of his own skill and taste and the knowledge and experience of others; that in many instances he has to act in the capacity of an agent, employing and arranging the highest technical craftsmanship he can command; in other instances, as an architect proper, designing and directing the labor of others. It should be his earnest wish to assume the latter *rôle* more completely by mastering details and extending the artistic functions of his profession; and in these cases, where he is obliged to call in the advice of the specialist, he may do so with discriminating intelligence. We wish we could see more of this spirit of independent thought and conscientious labor manifested amongst the ranks of the profession. Unfortunately, there is a strong inclination to shirk work and responsibility when any unusual skill is necessary, and a growing desire among the firms of contractors to take advantage of this spirit by offering their services in the design of buildings, fittings and decorations with which they may be intrusted as contractors. — *The Building News.*

SOCIETIES

A. I. A. PRELIMINARY NOTICE.

September 19, 1889.

THE joint Convention of the American Institute of Architects and Western Association of Architects will be held in Cincinnati, opening on Wednesday, 20th of November next, at 10 A. M.

The Annual Reports to and of each organization will be read, and the Constitution and By-Laws recommended for the reorganized Institute by the joint Committee on Consolidation, appointed by the two bodies, will be submitted for the final action necessary to consummate unification.

This will be followed by the reading and discussion of professional papers.

An Exhibition of Architectural illustrations, under the direction of the Cincinnati Architectural Club, will occur simultaneously with the Convention, and a reception will be given by the Club on the evening preceding the opening of the Convention, *viz.:* Tuesday, November 19th, to which all the members of both existing organizations are cordially invited.

Before the close of the Convention, opportunities will be afforded for the inspection of the prominent and interesting structures of the city, finished or in process of erection.

Members of either existing organization, having communications or papers of interest to the profession, which they propose to submit to the joint Convention, should forward them to the appropriate Secretary before the 1st of November ensuing.

Full particulars will be forwarded, in due course, to the members, alike of the existing Western Association of Architects and American Institute of Architects.

Joint Committee of Arrangements: E. H. Kendall, Chas. Crapsey, N. S. Patton, *Secretary* W. A. A., 44 Montauk Block, Chicago, A. J. Bloor, *Secretary* A. I. A., 18 Broadway, New York.

RHODE ISLAND ARCHITECTS' ASSOCIATION.

THE annual meeting of the Rhode Island Chapter of the American Institute of Architects was held on Wednesday evening at the Hotel Bristol. Officers elected for the ensuing year were: *President*, Alfred Stone; *Vice-President*, Howard Hoppin; *Secretary*, Edward I. Nickerson; *Treasurer*, James Fludder. The membership at present is as follows: Alpheus C. Morse, Alfred Stone, Edward I. Nickerson, Charles E. Carpenter, James Murphy, George W. Cady, James Fludder, Howard Hoppin, Thomas J. Gould, Frank W. Angell, Edmund R. Wilson, Franklin J. Sawtelle, Charles F. Wilcox, Frederick E. Field, Walter G. Sheldon and Frank F. Tingley.

THE NATIONAL EXHIBITION OF ARCHITECTURAL DRAWINGS AND SKETCHES.

CINCINNATI, OHIO, September 27, 1889.

The publication of our Illustrated Catalogue entails much work upon the Committee having it in charge. It is the intention of this Committee to publish an Artistic Catalogue, and to do this, it is of paramount importance that all catalogue illustrations be received promptly. The Committee therefore requests that they be expressed as soon as possible, to John Zettel, Secretary, 227 Main Street. The latest date on which these designs can be received is October 19.

It is also respectfully urged that the schedules previously sent, be filled and returned at an early date.

The letter accompanying this circular is indicative of the interest taken by our people here, and its contents are heartily commended to you.

In closing, attention is called to the following important instructions, *viz.:* All contributions must be expressed to arrive here not later than November 10. All catalogue illustrations must be here by October 19. Lack of time prevents a personal letter, hence this circular.

Again soliciting your co-operation,

G. W. E. FIELD, *President*, C. A. C.

CINCINNATI, OHIO, September 26, 1889.

JOHN ZETTEL, ESQ., Secretary Cincinnati Architectural Club:

Dear Sir, — Present our compliments to the Club, and say, to interest all concerned, we beg to offer as a special premium a silver medal as an award for best design and drawings, complete, of the hardware necessary to complete a door, *viz.:* hinges 5 x 5, mortise lock, knobs and combined escutcheons. Also, such hardware as is necessary to complete a window, with inside blinds, *viz.:* hinges 1½ x 2, shutter knob and bar, sash-lock and flush or rim lift. The design to be Romanesque. The prize-drawing to be ours after such competition and award is made in accordance with judges' decision.

Respectfully,

WAYNE HARDWARE CO., C. E. STEWART, *Secretary.*

THE ARCHITECTURAL LEAGUE OE NEW YORK.

THE first regular autumn meeting and dinner of the League, will be held at Morello's restaurant, No. 8, West 29th Street, on Monday, October 7, at 6.30 P. M.

The evening will be devoted to a general discussion of the American Fine Arts Building, and to the election of a jury for the Fifth Annual Exhibition.

The Committee on Current Work, respectfully announce, that after 4 P. M., on the day of the meeting the DeVinne Press Building, through the courtesy of Theodore L. DeVinne & Co., will be open for inspection to the members of the League, on presentation of the enclosed card.

Mr. Willard, of Messrs. Babb, Cook & Willard, has been asked to conduct the members through the building.

COMMUNICATIONS

[*The editors cannot pay attention to demands of correspondents who forget to give their names and addresses as guaranty of good faith; nor do they hold themselves responsible for opinions expressed by their correspondents.*]

A QUESTION OF CHARGES AND PROCEDURE.

September 24, 1889.

TO THE EDITORS OF THE AMERICAN ARCHITECT: —

Dear Sirs, — Kindly let me have your opinion or that of some of your correspondents on the following: An architect who has furnished two sets of drawings (originals and tracings) to trustees, and is employed to superintend the building; the trustees who think the contractor requires to be watched while the architect is absent (the work being in the country) ask to have a second set of tracings, so as to enable them to watch builder. They were informed at the time a something would be charged extra for an extra set of tracings. They did not then object. Before a full set of extra tracings was delivered, the builder was suspended by the architect for carelessness and incompetence. His tracings were then turned over to the foreman employed by the trustees to finish the work, consequently the part of the extra tracings then supplied were unnecessary. Are trustees liable to pay a fair price for said tracings? When builder was suspended trustees called on architect to ascertain the cost of finishing work. This he did, measuring up the entire work from drawings and giving credit for the work already performed. Architect charges two per cent on cost or amount of estimate. This is one-half per cent more than usual for measurers' or building surveyors' fees. Is he entitled to this charge over and above his fees for plans and superintendence and under the circumstances to the extra one-half per cent? The job is now complete so far as the money will allow, and they don't at present propose a vote for more bonds. He has written to the trustees charging the items referred to, but they refuse to pay him. He also asks the return of all tracings, drawings, details, etc., as provided to be returned at completion of work by contractor. The trustees have not deigned to notice that part of the correspondence. Can the architect sue for the return of his drawings or can he sue for liquidated damages for said detention?

Yours, "EQUITY."

[THIS case is not perfectly clear. As we understand "Equity's" letter, he furnished only one set of tracings, keeping the original drawings himself. We do not think he was bound to furnish another set of tracings gratuitously, but such matters are usually amicably arranged, and in this instance it was probably for the architect's advantage to have the assistance of the trustees in supervising the work, so that he could afford to make his charge for the extra tracings moderate. As to the proper charge for ascertaining the cost of finishing the building, after the suspension of the contractor, we could hardly judge without knowing more of the circumstances. Two per cent on the cost might be a perfectly fair remuneration, but it would perhaps be better to charge a reasonable rate per hour, or per day, for the time occupied, rather than a percentage. A surveyor assumes a heavy responsibility, besides spending his time and skill on such an estimate, and by the percentage system he is compensated in some sort of proportion to the responsibility laid on him. In the present instance, the architect seems to have

been simply asked for an opinion in regard to the cost of completing the work. Such an opinion from an architect could not be more than an estimate, involving no responsibility for its correctness within wide limits, and, even though measurements were made from the plans, it does not follow that a surveyor's fee was earned. In regard to the return of the drawings, we should say that the "completion of work by the contractor" was intended to mean the completion of the building and that the trustees were entitled to keep them as long as they would be of use in the work, notwithstanding any temporary suspension of operations.—Eds. American Architect.]

NOTES AND CLIPPINGS

Statues of Columbus.—The *Boston Journal* having rashly stated that the United States possesses but one statue of Christopher Columbus, and that one given to Baltimore by a French consul in the last century, somebody writes to say that there is a second in Fairmount Park, Philadelphia, and a third, of granite, in the old arsenal in Central Park, New York, presented in 1869 by the late Marshall O. Roberts. A fourth exists in Boston itself, of marble, and stands in so well-known a spot as Louisburg Square. It was presented to the city in 1849 by Mr. Joseph Iasigi, a Turkish merchant, who became an American citizen, and whose children are prominent members of the community.—*N. Y. Times.*

Proposed Paris Ship-Canal.—The commission appointed to inquire into the scheme for making Paris a seaport has now issued its report. In this it is stated that the canal is of a nature to increase the commercial activity of France by bringing Paris into more direct communication with the great producing centres, and would, in particular, enable the city to compete with Antwerp, the commerce of which, it is said, is increasing year by year, to the detriment of French ports. No insuperable engineering difficulties are to be encountered; and, even taking the most pessimistic estimate of the cost, viz., 200,000,000 francs, it is believed that the traffic would be sufficient from the very commencement to earn interest on this. French estimates of the expenses of canal construction will, however, be received with some caution after the gigantic *fiasco* of Panama. Proceeding, the report goes on to say that the heavy sacrifices made by France in the past few years have not succeeded in meeting the competition of Antwerp, the trade of which has risen in a few years from 1,000,000 to 7,000,000 tons, and affirms that the only chance of doing so now is by rendering Paris accessible to sea-going vessels. It is further stated that, in the event of another war, it would be impossible to starve out Paris, as in 1871, were the canal made, though it is not easy to see the grounds of this statement, as one would think that the canal could be blocked without much difficulty. The canal would be 180 kilometres long, and a depth of 6.2 metres is proposed for the channel, the breadth of which at the bottom should be half as wide again as at Suez. The spoil from the excavation could, it is said, be advantageously disposed of in raising the level of some low-lying lands along the banks of the Seine. Whether the work will be undertaken by the Government remains to be seen, but it is, on the whole, unlikely, as the engineers of the Seine are said to be opposed to the scheme; and, if the Government do not take it up, no other body in France will; of that we may be certain.—*Engineering.*

The Church of Vasili Blagennol.—The history of the church of Vasili Blagennoi is as strange as its aspect. It was built by order of Ivan the Terrible, at the expense of the principality of Kazan, as an expression of gratitude to God for the czar's conquest of that country. The name of the architect, an Italian, is unknown, but tradition relates that his eyes were burnt out by order of Ivan to prevent his designing in future any more wonderful monument. "It is my wish," said the terrible autocrat, "that this sanctuary remain the unique and glorious monument of the genius of this man." In the basement of the edifice are two chapels, and on the upper story nine chapels, surmounted by nine cupolas, each different in shape, dimensions, color, details, style and structural disposition. The spire, too, is placed at the east and not at the west, as orthodoxy demands. The façades, again, are all different and without discernible plan, and the whole structure, with its suggestions of Hindoo, Byzantine, Gothic and nondescript architecture, and its profusion of painted ornaments and masses of crude yellow, blue, red and green, forms an admirable and mysterious harmony, the secret of which none can explain, and the charm of which no words can describe. The whole exterior, with its superimposed arches, its profusion of color and gilding, its painting of roses and other flowers in panels all over the walls, is strangely original. On the pedestal formed by the nine chapels and their basement are placed belfries and cupolas starting upward from masses of masonry resembling the imbricated foliage of the artichoke, the scales of the pine cone, or the opening buds of the cactus flower. In the chief belfry the Italian element is clearly perceptible in the first three stories, above which is a story resembling an Indian pagoda, which in its turn is surmounted by an hexagonal crocketed spire, on the summit of which is a lantern and an onion-shaped gilt cap. Another belfry supports a cupola in the shape of a pineapple all covered with pointed facets; on another the pineapple cupola is laced over with a symmetrical network through whose meshes the points alone are visible. Another cupola imitates the ribbed form of a melon; another, the twisted folds of a monumental turban; another, the close scales of the serpent. Let it be remembered, too, that each of these cupolas is of a different color—one orange, another sky-blue, another apple-green, another deep red; and that, besides paint in profusion, the mouldings, cornices, consoles, panels, pinnacles, imbrications and tiers of arches are lavishly decorated with brightly-colored glazed faience. Of this fantastic architectural dream, suggestive of uncanny sea monsters, half-fish and half-flower, of gigantic fruits, or of vegetables and Oriental turbans of such capricious and impossible proportions as one might conceive in a nightmare. Théophile Gautier has given us a poet's description, which we cannot do better than cite: "The Church of Vasili Blagennoi," he says, "is without doubt the most original monument in the world; it recalls nothing that one has ever seen, and belongs to no known style. One might imagine it to be a gigantic madrepore, a crystalized colossus, a stalacite grotto turned upside down—a thing which has neither prototype nor similitude. It might be taken for a Hindoo, Chinese or Thibetan pagoda. In looking at this impossible church one is tempted to ask if it is not a whimsical will-o'-the-wisp, an edifice formed of clouds fantastically colored by the sun, which the movement of the air will presently cause to change in form or vanish into nothingness."—*Boston Transcript.*

TRADE SURVEYS

The manufacturing interests ordinarily pay very little attention to the fluctuations of bank reserves, rates of money, and mere financial indications generally, but the fact that the reserves have, for the first time in several years, fallen below the legal limit is at least worthy of passing mention for what it may mean. The only importance attaching to such financial exhibits is its possible bearing on the supply of money for business requirements. A prolonged stringency would affect the course of hundreds of millions of dollars and the earning power of thousands of millions. Financiers who imagine that they are interested in rigidly restricting the volume of currency within certain narrow limits, as measured by the gold supply, argue increased stability from this present showing; but borrowing interests and business men generally, who look upon money as the representation of so much power, view with regret the evidences of scarcity. It is impossible to measure the extent of the disastrous consequences which would follow a sudden inability on the part of business interests to adjust their mutual balances by the exchange of checks. The present lauded system is open to severe criticism, and, sooner or later, the whole question involved in a comprehensive and low monetary system will have to be gone over, not by lawyers, bankers or exchanging interests, but by the producing interests, and in the interests of production as contra-distinguished from exchange interests. A review of reports of railway systems for the past thirty days show a great improvement over similar reports a year ago. Vigorous economical management is visible in all departments of the railway service, and the effects are apparent in stronger confidence in the managements. Very recent information from investors, promoters and projectors of railroads is to the effect that several long lines will be undertaken next year. The announcement was made on Tuesday that the Pennsylvania had contracted for forty-five thousand tons of steel rails in Pennsylvania mills, and that there were inquiries in Eastern and Western markets for upwards of two hundred thousand tons of steel rails. All manner of iron and steel products have advanced in price in large lots at mills, and a greater volume of work than ever has presented itself since October 1. What is true of iron and steel is measurably true of a score of other industries and interests. The strong upward tendency in prices is giving confidence to the rank and file of buyers, the aggregate of whose purchases is something enormous. The extraordinary demand for machinery continues, and the improvements and new economies that are being introduced are compelling the removal of considerable old machinery and the substitution of new. Pipe-mills are crowded with orders. Western nail factories are barely able to fill jobbers' orders promptly. Prices have advanced ten per cent per keg, East and West. Beams and channels have moved up $6.72 per ton. Bridge-builders report more inquiries for bridge-work than they have had for years. Pumps for steam-users' purposes, and hydraulic machinery for mines and various other uses, are in great request.

The anthracite-coal producers are 2,000,000 tons behind last year. Natural-gas developments in new fields are encouraging, but there are additional discouraging signs in Western Pennsylvania, which, of course, stimulate the efforts of those who are improving fuel-gas processes. Cost of production generally has probably reached bottom limits; manufacturers generally incline to this opinion. The only present uncertainty is as to the course of organized labor next year. The upward tendency in prices is often the occasion of apprehension and ultimately of deep regret, but the present feeling is that the steps in that direction are and will continue to be so gradual that no harm will be done to enterprise or to investors. Over four thousand new industrial enterprises have been started in the Southern States this year, against less than three thousand up to same time last year. The encouragement afforded thus far has stirred up deeper interest in Southern resources, and of late foreign investors have sent experts to report upon certain projected schemes. But little difficulty is experienced in obtaining a sufficient supply of good white and even colored labor, but the percentage of blacks is much less than of whites. But few forced sales have been made this year in the South, and much of the new managing capacity is of Southern birth and training. The industrial spirit is permeating all classes, and this fact will perhaps accomplish more in the solution of semi-political problems than the best intended schemes of law-makers. Financiers, speaking for home and British investors, stated a week ago in New York that the inflow of capital to the South was only in its infancy, that ship and boat yards, railroad-building and the planting of new industrial establishments would probably set in with greater force next year. The constructors of electric-light plants and of water-works say substantially the same thing from their standpoint. Within thirty days two hundred locomotive engines have been ordered, and if present requisitions are approved of there will be orders for over five hundred additional engines and some twenty thousand freight and coal cars contracted for by December 31. The pending railroad requirements are very heavy indeed. The New England industrial conditions have improved somewhat. Hardware and hardware specialties are wanted to the full capacity of works. All electric-light machinery-makers are sold out. Paper-makers report continued activity, and capacity has been increased fully as much this year as last. Shop and factory labor is in demand. City and town real-estate is improving in value, but a more or less general depreciation of farm lands is complained of. This depreciation, which is the occasion of some unfavorable comment, will correct itself in time through an inevitable equalization of advantages of section with section. The architects in the larger cities of the New England and Middle States are of opinion that the inside winter work will be exceptionally active. The dealers in hardwoods report similarly from their standpoint, as sellers of lumber for use in such work.

S. J. Parkhill & Co., Printers, Boston.

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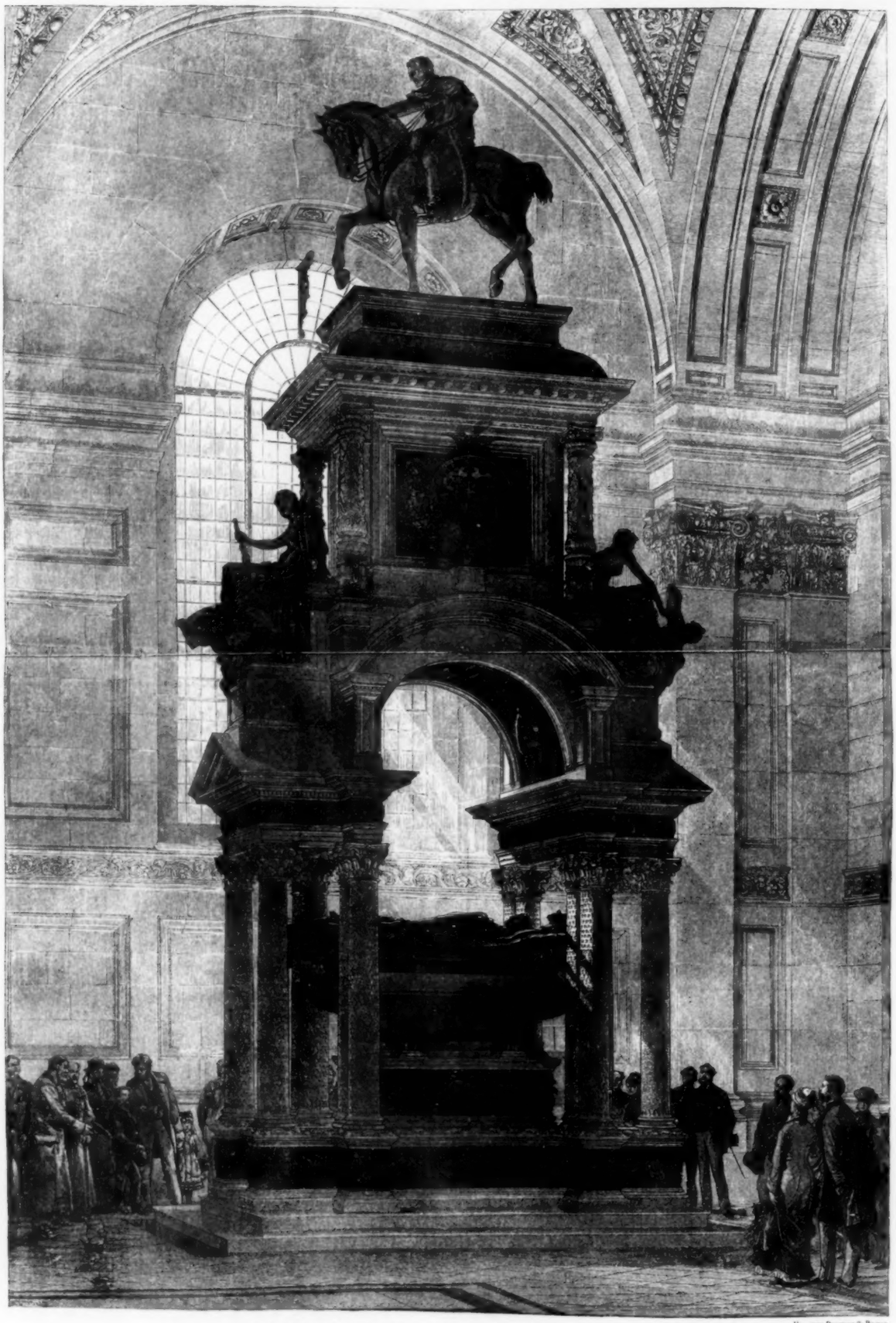

THE WELLINGTON MONUMENT IN ST. PAULS CATHEDRAL.

Heliotype Printing Co. Boston

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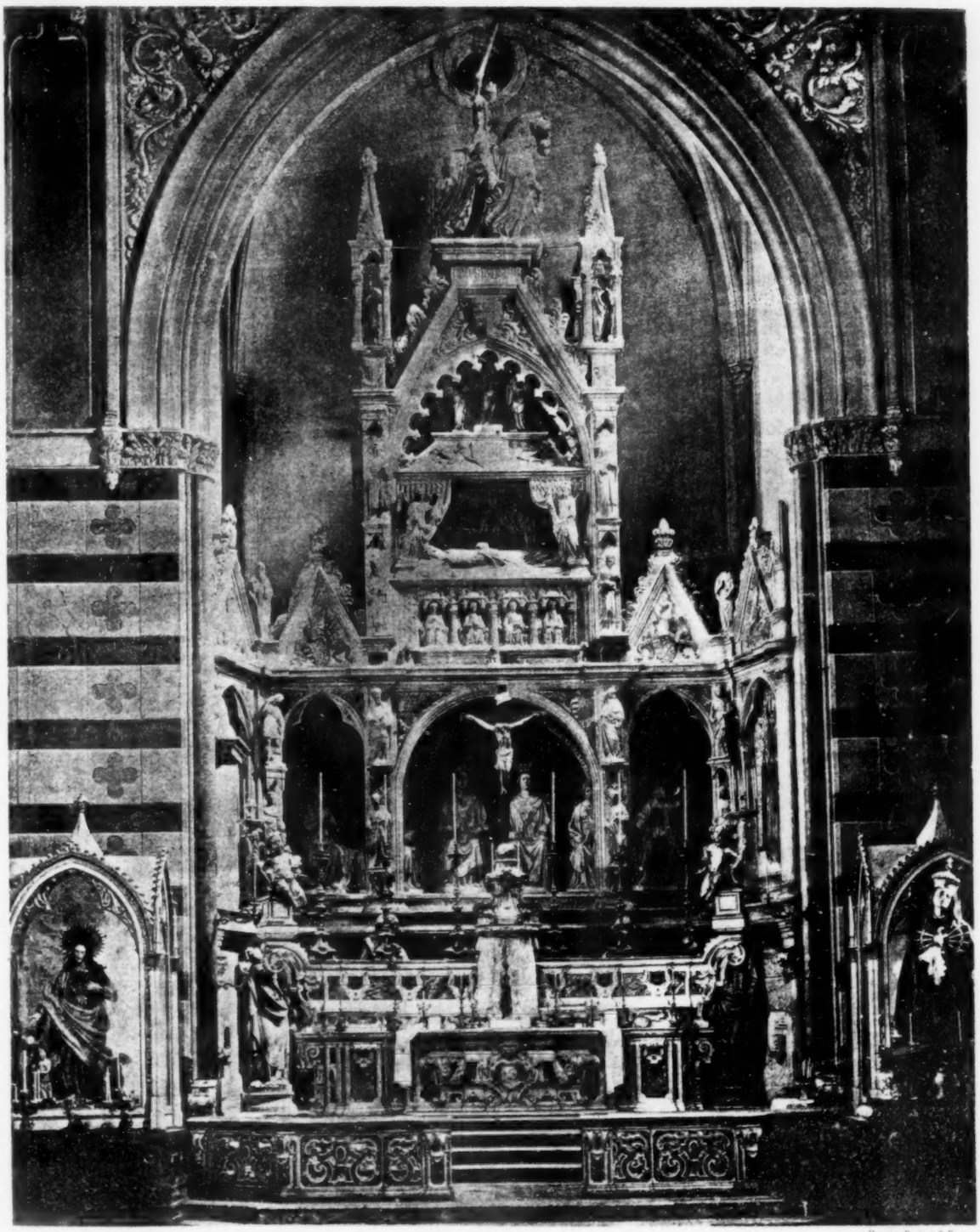

TOMB OF KING LADISLAUS.
NAPLES, ITALY.

HELIOTYPE PRINTING CO. BOSTON

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SCULPTURE, FROM THE PLACE DU CARROUSEL.

J. FAUBE

SCULPTURE, FROM THE PLACE DU CARROUSEL, PARIS.

J. FAUBEL SCULPTOR

L.C. BOILEAU, ARCHITECT

Hellotype Printing Co. Boston

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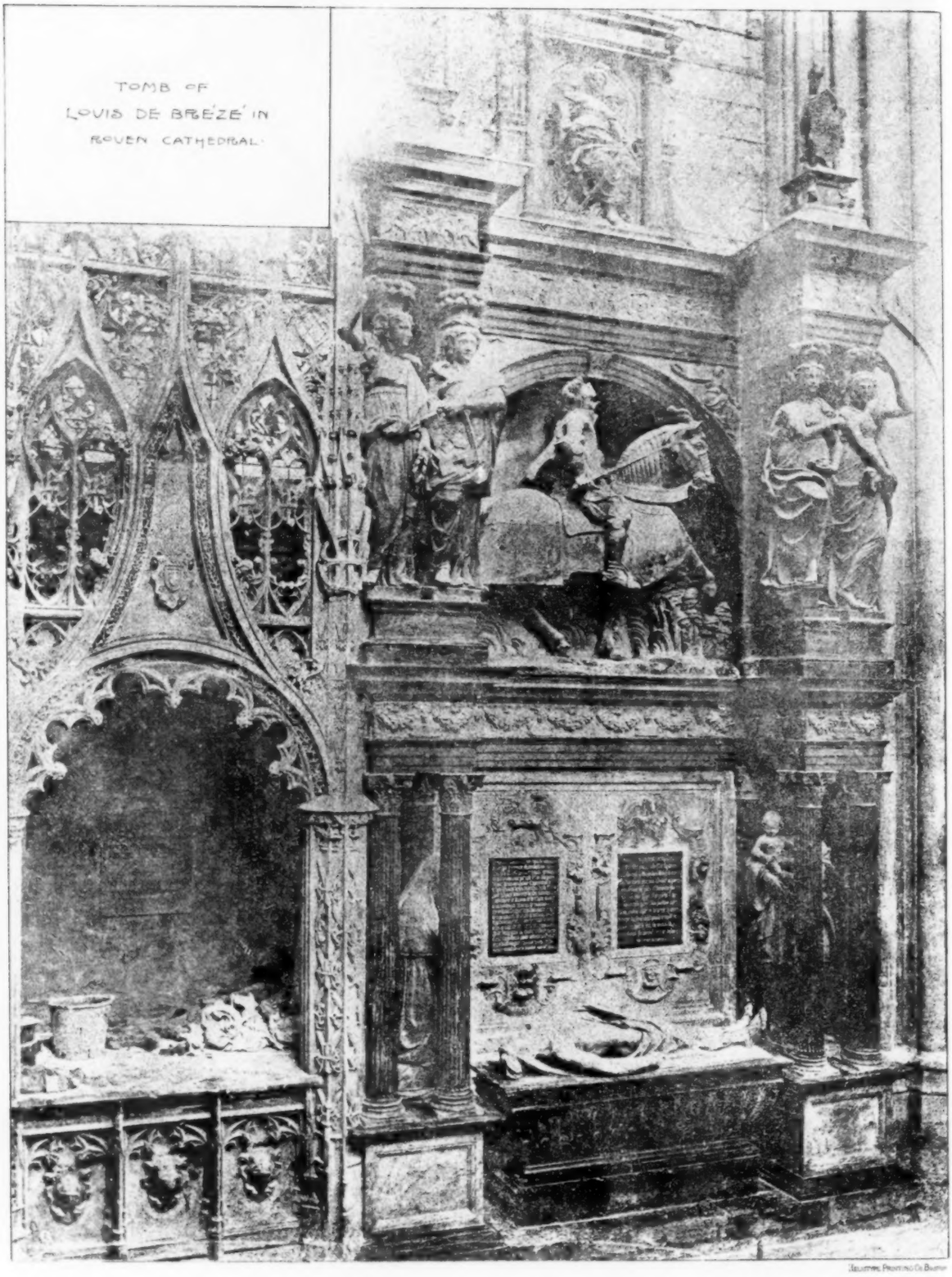

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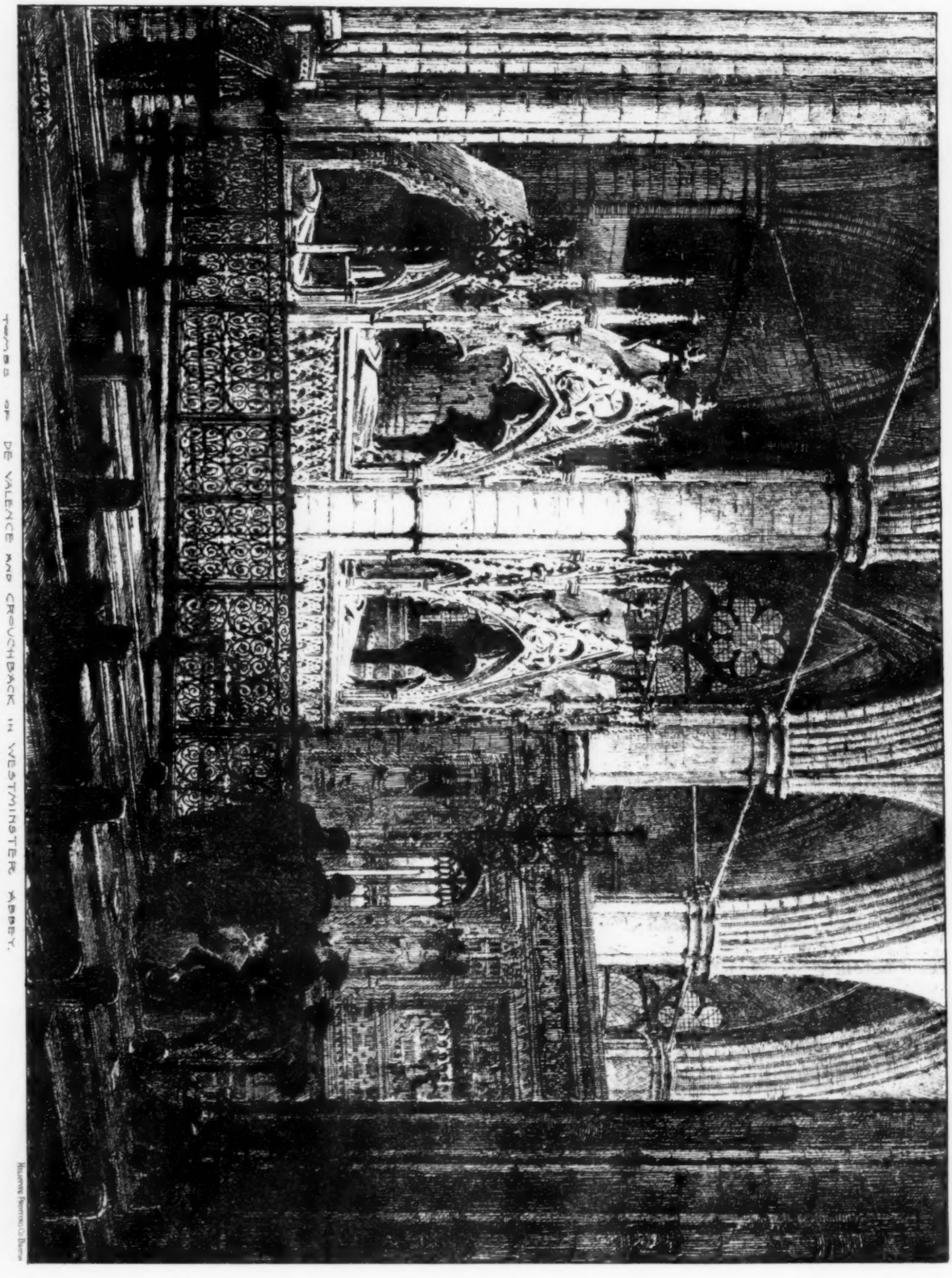

TOMBS OF DE VALENCE AND CROUCHBACK IN WESTMINSTER ABBEY.